

Welcome to Pueblo Community College

Let me be the first to welcome you to Pueblo Community College and express my sincere pleasure in your desire to achieve a higher education in an environment that provides quality academics and student support. Our faculty and staff are prepared to fully support you – at PCC you can **expect more** and you will **get more**. Our road map for programs, workforce development, community education, and student success has been designed with each student in mind.

PCC is a comprehensive community college and one of 13 schools that form the Colorado Community College System – the largest system of higher education in the state. Our service area spans more than 11,000 square miles and includes not only the main campus in Pueblo but branch campuses in Canon City and Mancos, in addition to a site in Durango. If the traditional classroom and schedule do not fit your needs, PCC is pleased to offer hybrid and online learning options. We are a Hispanic-Serving Institution; diversity is welcome and respected.

In addition, we offer valuable resources to all PCC students:

Learning services include free tutoring, learning groups, study skills enhancement, test-taking strategies and accelerated basic skills development. These programs are not extras; rather, they are key paths to success. Your participation may allow you to take a higher course load and finish your program of study faster and may also significantly reduce academic stress.

Financial assistance includes scholarship guidance, loan programs and one-on-one counseling to help you complete the necessary applications. PCC also offers numerous opportunities for financial support. Funds are available to help meet the needs of students and generally require simple applications, but to be eligible you must apply by specific deadlines.

Academic, career and transfer advising are your road maps in your academic journey. Seek guidance early and often to keep on the most direct path to success. Our advisors will help you develop plans that are guaranteed to transfer to your next school or lead directly into job placement.

Student services provide critical support and enrich your PCC experience. Some services provide crucial resources to help you stay in school – Project ACCESS, the Panther Student Pantry and peer mentoring are examples. Assistance in locating child care or transportation services is available through our partnerships with community agencies. Our health clinic in Pueblo provides access to a professional medical staff and discounted health services. Finally, involvement in our many student activities and clubs will help you become more connected and engaged in your PCC experience.

We encourage you to begin planning for success by scheduling a visit to one of our campuses and exploring the campus website. Please accept our heartfelt welcome to the PCC family.

With warm regards,

Patricia A. Erjavec, PhD
President

For more information about our services or to arrange for a personal tour of PCC, please contact the Office of Recruitment on the main campus at 719.549.3093 or recruitment@pueblocc.edu. You may also contact the Fremont Campus at 719.296.6100 or the Southwest Campus at 970.564.6201.

Governance & Accreditation

Notice of Non-Discrimination

Pueblo Community College prohibits all forms of discrimination and harassment including those that violate federal and state law or the State Board for Community Colleges and Occupational Education Board Policies 3-120 and 19-60. The College does not discriminate on the basis of sex/gender, race, color, age, creed, national or ethnic origin, physical or mental disability, veteran status, pregnancy status, religion, genetic information, gender identity, or sexual orientation in its employment practices or educational programs and activities. Pueblo Community College will take appropriate steps to ensure that the lack of English language skills will not be a barrier to admission and participation in vocational education programs.

The College has designated the Vice President of Human Resources as its AA/EEO and Title IX Coordinator, with the responsibility to coordinate the college's civil rights compliance activities and grievance procedures. If you have any questions, please contact the Vice President of Human Resources, 900 W. Orman Avenue, Central Administration Building, Room 111, telephone 719.549.3220, email HR.PCC@Pueblocc.edu. You may also contact the Office for Civil Rights, U.S. Department of Education, Region VIII, Federal Office Building, 1244 North Speer Blvd., Suite 310, Denver, CO 80204; phone: 303.844.3417.

Aviso de no discriminación

Pueblo Community College (PCC) prohíbe todas formas de discriminación y acoso, inclusive violación de leyes federales y estatales o las políticas educativas 3-120 y 19-60 4 del Consejo Estatal de Colegios Comunitarios y Laborales. El Colegio no discrimina en base al sexo/género, raza, color, edad, credo, origen nacional o étnico, incapacidad física o mental, estado de veterano, estado de embarazo, religión, información genética, identidad de género o orientación sexual en sus prácticas de empleo, programas educativos, o actividades que ofrece el Colegio. PCC tomará medidas apropiadas para asegurar que la falta de conocimientos del idioma inglés no será un impedimento para la inscripción y participación en programas de educación vocacional.

El Colegio ha designado el Vicepresidente de Recursos Humanos como su AA/EEO y Título IX, con la responsabilidad de coordinar las actividades de cumplimiento de los derechos civiles de la universidad y los procedimientos de quejas. Si tiene alguna pregunta, comuníquese con el Vicepresidente de Recursos Humanos, 900 W. Orman Avenue, Central Administration Building, Room 111, teléfono 719.549.3220, correo electrónico HR.PCC@Pueblocc.edu. También puede comunicarse con la Oficina de Derechos Civiles, Departamento de Educación de los Estados Unidos, Región VIII, Edificio de Oficinas Federales, 1244 North Speer Blvd., Suite 310, Denver, CO 80204; teléfono: 303.844.3417.

Governance

Pueblo Community College is governed by the State Board for Community Colleges and Occupational Education, which comprises 13 state system community colleges. The Colorado Department of Higher Education (CDHE) is the central policy and coordinating board for all public institutions of higher education and establishes policy on legislative, academic and fiscal matters.

Accreditation

Pueblo Community College is a member of and accredited by The Higher Learning Commission, 230 South LaSalle St., Suite 7-500, Chicago, IL 60604; website; phone: 800.621.7440. In addition, several programs hold approval or accreditation from national and state level associations and agencies:

Culinary Arts Program

Accredited by the American Culinary Federation, 180 Center Place Way, St. Augustine, FL 32095; phone: 800.624.9458.

Dental Hygiene Program

Accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education, 211 E. Chicago Ave., Chicago, IL 60611-2678; phone: 312.440.2500.

Emergency Medical Services Program-Paramedic

Accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). To contact CAAHEP: Commission on Accreditation of Allied Health Education Programs, 1361 Park St., Clearwater, FL 33756; phone: 727.210.2350; website: To contact CoAEMSP: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088; phone: 214.703.8445; fax: 214.703.8992; website.

Machining Technology Program

Accredited by The National Institute for Metalworking skills, 10565 Fairfax Boulevard, Suite 10, Fairfax, VA 22030; phone: 703.352.4971; website.

Medical Coding Certificate Program

Accredited by the American Health Information Management Association (AHIMA), 233 N. Michigan Ave., 21st Floor, Chicago, IL 60601-5809; phone: 312.233.1100; website.

NSA/DHS National Centers of Academic Excellence in Cyber Defense Two-Year Education (CAE-2Y)

Accredited by the National Center of Academic Excellence in Cyber Defense Education 2 Year Education Program criteria for measurement. Jointly sponsored by the National Security Agency and Department of Homeland Security.

Nursing Aide

Approved by the Colorado State Board of Nursing.

Nursing – Associate Degree Nursing Program

Accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; phone: 404.975.5000, website. Approved by the Colorado State Board of Nursing.

Occupational Therapy Assistant Program

Accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association, 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449; phone: 301.652.2682.

Physical Therapist Assistant Program

The Physical Therapist Assistant Program at Pueblo Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave, Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; email: accreditation@apta.org; website: www.capteonline.org. If needing to contact the program/institution directly, please call 719-549-3433 or email Margaret.Oreskovich@pueblocc.edu.

Psychiatric Technician Program

Approved by the Colorado State Board of Nursing.

Respiratory Care Program

Accredited by the Commission on Accreditation for Respiratory Care (CoARC), 12248 Harwood Road, Bedford, TX 76021-4244; phone: 817.283.2835.

Surgical Technology Program

The PCC Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs, 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763; phone: 727.210.2350; upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

Certification

The following programs have received certification as designated:

Automotive Collision Technology

Certified by National Technicians Education Foundation (NATEF) under the Automotive Service Excellence (ASE) guidelines, 101 Blue Seal Drive S.E., Suite 101, Leesburg, VA 20175; phone: 703.669.6650.

Certified by Automotive Youth Educational System (AYES) Guidelines, 2701 Troy Center Drive, Suite 450, Troy, MI 48084; phone: 888.339.2937.

Automotive Service Technology

Certified by National Technicians Education Foundation (NATEF) under the Automotive Service Excellence (ASE) guidelines, 101 Blue Seal Drive S.E., Suite 101, Leesburg, VA 20175; phone: 703.669.6650.

Certified by Automotive Youth Educational System (AYES) guidelines, 2701 Troy Center Drive, Suite 450, Troy, MI 48084; phone: 888.339.2937.

Law Enforcement Academy

Certified by the Colorado Department of Law, Criminal Justice Section – Colorado POST, Ralph L. Carr Colorado Judicial Center, 1300 Broadway, 9th Floor, Denver, CO 80203; phone: 720.508.6721; fax: 866.858.7486.

Campus Locations

Pueblo Campus - Serving Pueblo County

900 W. Orman Ave.
Pueblo, CO 81004
719.549.3200
Toll-free 888.642.6017

Fremont Campus - Serving Fremont and Custer counties

51320 West Highway 50
Cañon City, CO 81212
719.296.6100

Southwest Campus (Serving Archuleta, Dolores, La Plata, Montezuma and San Juan counties)

33057 Highway 160
Mancos, CO 81328
970.564.6200

Durango Site

Durango High School
2320 Main Avenue
Durango, CO 81301
970.385.2000

Bayfield Site

110 E. South St.
Bayfield, CO 81122
970.385.2070

Academic Calendar (2021-2022 Catalog)

Current Academic Semester

Semester Length

PCC operates on the semester system and offers the following terms:

- Fall and Spring: Full Term (16 weeks), Fall/Spring I (8 weeks) and Fall/Spring II (8 weeks)
- Summer: Full Term (10 weeks), Summer I (5 weeks) and Summer II (5 weeks)
- Special-length courses offered during all regular semesters

Curriculum and total instructional time are the same regardless of the length of the term.

College Closures

Closure/Delayed Start due to Weather

Pueblo Community College makes every effort to remain open and hold classes as scheduled. Decisions to close or delay due to weather will be made based on current and predicted weather and road conditions. When there is reasonable evidence that inclement weather has created or is expected to create hazardous travel conditions, the College President or Chief Business Officer (in absence of the President) may announce a campus closure.

Closure/Delayed Start due to other Emergency

Closures/delayed starts due to other emergencies are determined on a case-by-case basis depending on the nature of the emergency. The College President or Chief Business Officer (in absence of the President) will announce a campus closure and act in accordance with the Emergency Operations Plan. Staff and Faculty should follow procedures found in the Emergency Procedures Guide (flip chart located in all offices and classrooms) and assist students in vacating college facilities.

Communication Procedure for Closures

When possible, the decision to close a campus or delay the start of classes/opening of offices will be made by 6 a.m. or earlier for full-day closures or delayed starts and by 3 p.m. or earlier for the early closure of a campus or cancellation of evening classes (classes starting at or after 5 p.m.).

MyPCC Alert is the main communication delivery method for announcements regarding a closure/delayed start. The College will also communicate via the College website, Facebook, Twitter and through local television stations, when possible.

Resuming Classes in the event of a Delayed Start

When a delayed start is in effect, all classes starting prior to the delayed start time will be canceled in full. For instance, if a campus has announced a delayed start time of 10 a.m., any classes with a start time occurring prior to 10 a.m. will be canceled in full even if the class would still be in progress after 10 a.m.

Classes/Events in Progress in the event of an early Closure

The College will make every attempt to give ample notice of an early closure; however, in cases of emergencies, this may not be possible. Faculty, instructors and staff must adhere to the procedures detailed in the Emergency Procedures Guide in the event of a sudden early closure due to an emergency.

<h1>Pueblo Community College</h1>
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Academic Calendar Spring 2021-Spring 2024 (202130-202430)

PUEBLO - FREMONT - PCCONLINE - SOUTHWEST

Spring 2021 | **202130**

Full Term Classes (Not CCCOnline)

Registration Begins	Monday	November 2, 2020
All Staff Return	Monday	January 4, 2021
Chairs Return	Monday	January 11, 2021
Faculty Return	Wednesday	January 13, 2021
Tuition Due Date	Wednesday	January 13, 2021
Pre-drop for Non-Payment Warning	Wednesday	January 13, 2021
Faculty Professional Development Day	Thursday	January 14, 2021
Registration Ends	Friday	January 15, 2021
Full-Term Classes Begin	Monday	January 18, 2021
Schedule Adjustment Period	Monday - Friday	Jan. 18-22, 2021
Pre-drop for Non-Payment Warning	Wednesday	January 20, 2021
Pre-drop for Non-Payment Warning	Wednesday	January 27, 2021
Drop for Non-Payment	Tuesday	February 2, 2021
End of Refund Period/Census	Wednesday	February 3, 2021
Midterm	Monday - Saturday	Mar. 8-13, 2021
Spring Break ALL Campuses	Monday - Saturday	Mar. 22-27, 2021
Last Day to Withdraw	Wednesday	April 21, 2021
Final Week of Classes	Monday - Saturday	May 10-15, 2021
Last Faculty Day	Friday	May 14, 2021
Commencement (Pueblo and Fremont Campus)	Friday	May 14, 2021
Classes End	Saturday	May 15, 2021
Commencement (Durango and Cortez Campus)	Sunday	May 16, 2021

Grades Due	Monday	May 17, 2021
Spring I (Not CCCOnline)		
Faculty Professional Development Day	Thursday	January 14, 2021
Registration Ends	Friday	January 15, 2021
Session Begins	Monday	January 18, 2021
Schedule Adjustment Period	Monday - Tuesday	Jan. 18-19, 2021
End of Refund Period/Census	Monday	January 25, 2021
Last Day to Withdraw	Tuesday	March 2, 2021
Classes End	Saturday	March 13, 2021
Grades Due	Monday	March 15, 2021
Spring II (Not CCCOnline)		
Session Begins	Monday	March 15, 2021
Schedule Adjustment Period	Monday - Tuesday	Mar. 15-16, 2021
End of Refund Period/Census	Tuesday	March 23, 2021
Spring Break ALL Campuses	Monday - Saturday	Mar. 22-27, 2021
Last Day to Withdraw	Monday	May 3, 2021
Commencement (Pueblo and Fremont Campus)	Friday	May 14, 2021
Classes End	Saturday	May 15, 2021
Commencement (Durango and Cortez Campus)	Sunday	May 16, 2021
Grades Due	Monday	May 17, 2021
Summer 2021		202210
Full Term Session (Not CCCOnline)		
Registration Begins	Monday	November 2, 2020
Tuition Due Date	Wednesday	May 19, 2021

(Data deleted)		
(Data deleted)		
Registration Ends	Friday	May 28, 2021
Memorial Day	Monday	May 31, 2021
Classes Begin	Tuesday	June 1, 2021
Schedule Adjustment Period	Tues - Wed	June 1 - June 2, 2021
(Data deleted)		
(Data deleted)		
End of Refund Period/Census	Thursday	June 10, 2021
Independence Day Holiday (Observed)	Monday	July 5, 2021
Last Day to Withdraw	Monday	July 26, 2021
Classes End	Monday	August 9, 2021
Grades Due	Tuesday	August 10, 2021

First 5 Week Session (Not CCCOnline)

Registration Begins	Monday	November 2, 2020
Registration Ends	Friday	May 28, 2021
Classes Begin	Tuesday	June 1, 2021
Schedule Adjustment Period	Tuesday	June 1, 2021
End of Refund Period/Census	Monday	June 7, 2021
Last Day to Withdraw	Monday	June 28, 2021
Classes End	Monday	July 5, 2021
Grades Due	Tuesday	July 6, 2021

Second 5 Week Session (Not CCCOnline)

Registration Begins	Monday	November 2, 2020
Classes Begin	Tuesday	July 6, 2021

Schedule Adjustment Period	Tuesday	July 6, 2021
End of Refund Period/Census	Monday	July 12, 2021
Independence Day Holiday (Observed)	Monday	July 5, 2021
Last Day to Withdraw	Monday	August 2, 2021
Classes End	Monday	August 9, 2021
Grades Due	Tuesday	August 10, 2021
Fall 2021	202220	
Full-Term Classes (Not CCCOnline)		
Registration Begins	Monday	April 5, 2021
Chairs Return	Monday	August 9, 2021
Faculty Return	Tuesday	August 10, 2021
Tuition Due Date	Wednesday	August 11, 2021
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Faculty Professional Development Day	Thursday	August 12, 2021
Registration Ends	Friday	August 13, 2021
Full-Term Classes Begin	Monday	August 16, 2021
Schedule Adjustment Period	Monday - Friday	Aug. 16-20, 2021
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End of Refund Period/Census	Wednesday	September 1, 2021
Labor Day Holiday	Monday	September 6, 2021
Midterm Week	Mon - Fri	Oct. 4-8, 2021
Last Day to Withdraw	Wednesday	November 17, 2021
Thanksgiving	Thursday	November 25, 2021
Thanksgiving Break (No Classes)	Mon-Sat	Nov. 22-27, 2021

Final Week of Classes	Mon - Sat	Dec. 6-11, 2021
Last Faculty Day	Friday	December 10, 2021
Classes End	Saturday	December 11, 2021
Grades Due	Monday	December 13, 2021
Holiday Break (Offices Closed)	Friday - Friday	Dec. 24, 2021 - Dec. 31, 2021
All Staff Return	Monday	January 3, 2022

Fall I (Not CCCOnline)

Faculty Professional Development Day	Thursday	August 12, 2021
Registration Ends	Friday	August 13, 2021
Session Begins	Monday	August 16, 2021
Schedule Adjustment Period	Mon-Tues	Aug. 16-17, 2021
End of Refund Period/Census	Monday	August 23, 2021
Labor Day Holiday	Monday	September 6, 2021
Last Day to Withdraw	Tuesday	September 28, 2021
Classes End	Saturday	October 9, 2021
Grades Due	Monday	October 11, 2021

Fall II (Not CCCOnline)

Session Begins	Monday	October 11, 2021
Schedule Adjustment Period	Mon-Tues	Oct. 11-12, 2021
End of Refund Period/Census	Tuesday	October 19, 2021
Thanksgiving Break (No Classes)	Mon-Sat	Nov. 22-27, 2021
Last Day to Withdraw	Monday	November 29, 2021
Last Faculty Day	Friday	December 10, 2021
Classes End	Saturday	December 11, 2021
Grades Due	Monday	December 13, 2021

Spring 2022	202230	
Full Term Classes (Not CCCOnline)		
Registration Begins	Monday	November 8, 2021
All Staff Return	Monday	January 3, 2022
Chairs Return	Monday	January 10, 2022
Faculty Return	Wednesday	January 12, 2022
Tuition Due Date	Wednesday	January 12, 2022
Data deleted		
Faculty Professional Development Day	Thursday	January 13, 2022
Registration Ends	Friday	January 14, 2022
Full-Term Classes Begin	Monday	January 17, 2022
Schedule Adjustment Period	Monday - Friday	Jan. 17-21, 2022
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Data deleted		
End of Refund Period/Census	Wednesday	February 2, 2022
Midterm	Monday - Saturday	Mar. 7-12, 2022
Spring Break ALL Campuses	Monday - Saturday	Mar. 21-26, 2022
Last Day to Withdraw	Wednesday	April 20, 2022
Final Week of Classes	Monday - Saturday	May 9-14, 2022
Last Faculty Day	Friday	May 13, 2022
Commencement (Pueblo and Fremont Campus)	Friday	May 13, 2022
Classes End	Saturday	May 14, 2022
Commencement (Durango and Cortez Campus)	Sunday	May 15, 2022
Grades Due	Monday	May 16, 2022

Spring I (Not CCCOnline)

Faculty Professional Development Day	Thursday	January 13, 2022
Registration Ends	Friday	January 14, 2022
Session Begins	Monday	January 17, 2022
Schedule Adjustment Period	Monday - Tuesday	Jan. 17-18, 2022
End of Refund Period/Census	Monday	January 24, 2022
Last Day to Withdraw	Tuesday	March 1, 2022
Classes End	Saturday	March 12, 2022
Grades Due	Monday	March 14, 2022

Spring II (Not CCCOnline)

Session Begins	Monday	March 14, 2022
Schedule Adjustment Period	Monday - Tuesday	Mar. 14-15, 2022
End of Refund Period/Census	Tuesday	March 22, 2022
Spring Break ALL Campuses	Monday - Saturday	Mar. 21-26, 2022
Last Day to Withdraw	Monday	May 2, 2022
Commencement (Pueblo and Fremont Campus)	Friday	May 13, 2022
Classes End	Saturday	May 14, 2022
Commencement (Durango and Cortez Campus)	Sunday	May 15, 2022
Grades Due	Monday	May 16, 2022

Summer 2022

202310

Full Term Session (Not CCCOnline)

Registration Begins	Monday	November 8, 2021
Tuition Due Date	Wednesday	May 18, 2022
Pre-drop for Non-Payment Warning	Wednesday	May 18, 2022
Pre-drop for Non-Payment Warning	Wednesday	May 25, 2022

Registration Ends	Friday	May 27, 2022
Memorial Day	Monday	May 30, 2022
Classes Begin	Tuesday	May 31, 2022
Schedule Adjustment Period	Tues - Wed	May 31 - June 1, 2022
Pre-drop for Non-Payment Warning	Wednesday	June 1, 2022
Drop for Non Payment	Monday	June 6, 2022
End of Refund Period/Census	Thursday	June 9, 2022
Independence Day Holiday	Monday	July 4, 2022
Last Day to Withdraw	Monday	July 25, 2022
Classes End	Monday	August 8, 2022
Grades Due	Tuesday	August 9, 2022

First 5 Week Session (Not CCCOnline)

Registration Begins	Monday	November 8, 2021
Registration Ends	Friday	May 27, 2022
Classes Begin	Tuesday	May 31, 2022
Schedule Adjustment Period	Tuesday	May 31, 2022
End of Refund Period/Census	Monday	June 6, 2022
Last Day to Withdraw	Monday	June 27, 2022
Classes End	Monday	July 4, 2022
Grades Due	Tuesday	July 5, 2022

Second 5 Week Session (Not CCCOnline)

Registration Begins	Monday	November 8, 2021
Classes Begin	Tuesday	July 5, 2022
Schedule Adjustment Period	Tuesday	July 5, 2022
End of Refund Period/Census	Monday	July 11, 2022

Independence Day Holiday	Monday	July 4, 2022
Last Day to Withdraw	Monday	August 1, 2022
Classes End	Monday	August 8, 2022
Grades Due	Tuesday	August 9, 2022
Fall 2022	202320	
Full-Term Classes (Not CCCOnline)		
Registration Begins	Monday	April 4, 2022
Chairs Return	Monday	August 15, 2022
Faculty Return	Tuesday	August 16, 2022
Tuition Due Date	Wednesday	August 10, 2022
Pre-drop for Non-Payment Warning	Wednesday	August 17, 2022
Faculty Professional Development Day	Thursday	August 18, 2022
Registration Ends	Friday	August 19, 2022
Full-Term Classes Begin	Monday	August 22, 2022
Schedule Adjustment Period	Monday - Friday	Aug. 22-26, 2022
Pre-drop for Non-Payment Warning	Wednesday	August 24, 2022
Pre-drop for Non-Payment Warning	Wednesday	August 31, 2022
Labor Day Holiday	Monday	September 5, 2022
Drop for Non Payment	Tuesday	September 6, 2022
End of Refund Period/Census	Wednesday	September 7, 2022
Midterm Week	Mon - Fri	Oct. 10-14, 2022
Last Day to Withdraw	Wednesday	November 23, 2022
Thanksgiving	Thursday	November 24, 2022
Thanksgiving Break (No Classes)	Mon-Sat	Nov. 21-26, 2022
Final Week of Classes	Mon - Sat	Dec. 12-17, 2022
Last Faculty Day	Friday	December 16, 2022

Classes End	Saturday	December 17, 2022
Grades Due	Monday	December 19, 2022
Holiday Break (Offices Closed)	Saturday - Monday	Dec. 24, 2022 - Jan. 2, 2023
All Staff Return	Tuesday	January 3, 2023

Fall I (Not CCCOnline)

Registration Begins	Monday	November 8, 2021
Faculty Professional Development Day	Thursday	August 18, 2022
Registration Ends	Friday	August 19, 2022
Session Begins	Monday	August 22, 2022
Schedule Adjustment Period	Mon-Tues	Aug. 22-23, 2022
End of Refund Period/Census	Monday	August 29, 2022
Labor Day Holiday	Monday	September 5, 2022
Last Day to Withdraw	Tuesday	October 4, 2022
Classes End	Saturday	October 15, 2022
Grades Due	Monday	October 17, 2022

Fall II (Not CCCOnline)

Registration Begins	Monday	November 8, 2021
Session Begins	Monday	October 17, 2022
Schedule Adjustment Period	Mon-Tues	Oct. 17-18, 2022
End of Refund Period/Census	Tuesday	October 25, 2022
Thanksgiving Break (No Classes)	Mon-Sat	Nov. 21-26, 2022
Last Day to Withdraw	Monday	December 5, 2022
Last Faculty Day	Friday	December 16, 2022
Classes End	Saturday	December 17, 2022
Grades Due	Monday	December 19, 2022

Spring 2023	202330	
Full Term Classes (Not CCCOnline)		
Registration Begins	Monday	November 7, 2022
All Staff Return	Tuesday	January 3, 2023
Chairs Return	Monday	January 9, 2023
Faculty Return	Wednesday	January 11, 2023
Tuition Due Date	Wednesday	January 11, 2023
Pre-drop for Non-Payment Warning	Wednesday	January 11, 2023
Faculty Professional Development Day	Thursday	January 12, 2023
Registration Ends	Friday	January 13, 2023
Full-Term Classes Begin	Monday	January 16, 2023
Schedule Adjustment Period	Monday - Friday	Jan. 16-20, 2023
Pre-drop for Non-Payment Warning	Wednesday	January 18, 2023
Pre-drop for Non-Payment Warning	Wednesday	January 25, 2023
Drop for Non-Payment	Tuesday	January 31, 2023
End of Refund Period/Census	Wednesday	February 1, 2023
Midterm	Monday - Saturday	Mar. 6-11, 2023
Spring Break ALL Campuses	Monday - Saturday	Mar. 20-25, 2023
Last Day to Withdraw	Wednesday	April 19, 2023
Final Week of Classes	Monday - Saturday	May 8-13, 2023
Last Faculty Day	Friday	May 12, 2023
Commencement (Pueblo and Fremont Campus)	Friday	May 12, 2023
Classes End	Saturday	May 13, 2023
Commencement (PCC Southwest)	Saturday	May 13, 2023
Grades Due	Monday	May 15, 2023

Spring I (Not CCCOnline)

Registration Begins	Monday	November 7, 2022
Faculty Professional Development Day	Thursday	January 12, 2023
Registration Ends	Friday	January 13, 2023
Session Begins	Monday	January 16, 2023
Schedule Adjustment Period	Monday - Tuesday	Jan. 16-17, 2023
End of Refund Period/Census	Monday	January 23, 2023
Last Day to Withdraw	Tuesday	February 28, 2023
Classes End	Saturday	March 11, 2023
Grades Due	Monday	March 13, 2023

Spring II (Not CCCOnline)

Registration Begins	Monday	November 7, 2022
Session Begins	Monday	March 13, 2023
Schedule Adjustment Period	Monday - Tuesday	Mar. 13-14, 2023
End of Refund Period/Census	Tuesday	March 21, 2023
Spring Break ALL Campuses	Monday - Saturday	Mar. 20-25, 2023
Last Day to Withdraw	Monday	May 1, 2023
Commencement (Pueblo and Fremont Campus)	Friday	May 12, 2023
Classes End	Saturday	May 13, 2023
Commencement (PCC Southwest)	Saturday	May 13, 2023
Grades Due	Monday	May 15, 2023

Summer 2023

202410

Full Term Session (Not CCCOnline)

Registration Begins	Monday	November 7, 2022
Pre-drop for Non-Payment Warning	Wednesday	May 17, 2023

Tuition Due Date	Wednesday	May 24, 2023
Pre-drop for Non-Payment Warning	Wednesday	May 24, 2023
Registration Ends	Friday	May 26, 2023
Memorial Day	Monday	May 29, 2023
Classes Begin	Tuesday	May 30, 2023
Schedule Adjustment Period	Tues - Wed	May 30-31, 2023
Pre-drop for Non-Payment Warning	Wednesday	May 31, 2023
Drop for Non Payment	Monday	June 5, 2023
End of Refund Period/Census	Thursday	June 8, 2023
Independence Day Holiday	Tuesday	July 4, 2023
Last Day to Withdraw	Monday	July 24, 2023
Classes End	Monday	August 7, 2023
Grades Due	Tuesday	August 8, 2023

First 5 Week Session (Not CCCOnline)

Registration Begins	Monday	November 7, 2022
Registration Ends	Friday	May 26, 2023
Classes Begin	Tuesday	May 30, 2023
Schedule Adjustment Period	Tuesday	May 30, 2023
End of Refund Period/Census	Monday	June 5, 2023
Last Day to Withdraw	Monday	June 26, 2023
Classes End	Monday	July 3, 2023
Grades Due	Wednesday	July 5, 2023

Second 4 Week Session (Not CCCOnline)

Registration Begins	Monday	November 7, 2022
Independence Day Holiday	Tuesday	July 4, 2023

Classes Begin	Wednesday	July 5, 2023
Schedule Adjustment Period	Wednesday	July 5, 2023
End of Refund Period/Census	Monday	July 10, 2023
Last Day to Withdraw	Tuesday	August 1, 2023
Classes End	Tuesday	August 8, 2023
Grades Due	Wednesday	August 9, 2023
Fall 2023	202420	
Full-Term Classes (Not CCCOnline)		
Registration Begins	Monday	April 10, 2023
Tuition Due Date	Wednesday	August 9, 2023
Chairs Return	Monday	August 14, 2023
Faculty Return	Tuesday	August 15, 2023
Pre-drop for Non-Payment Warning	Wednesday	August 16, 2023
Faculty Professional Development Day	Thursday	August 17, 2023
Registration Ends	Friday	August 18, 2023
Full-Term Classes Begin	Monday	August 21, 2023
Schedule Adjustment Period	Monday - Friday	Aug. 21-25, 2023
Pre-drop for Non-Payment Warning	Wednesday	August 23, 2023
Pre-drop for Non-Payment Warning	Wednesday	August 30, 2023
Labor Day Holiday	Monday	September 4, 2023
Drop for Non Payment	Tuesday	September 5, 2023
End of Refund Period/Census	Wednesday	September 6, 2023
Midterm Week	Mon - Fri	Oct. 9-13, 2023
Last Day to Withdraw	Wednesday	November 22, 2023
Thanksgiving	Thursday	November 23, 2023
Thanksgiving Break (No Classes)	Mon-Sat	Nov. 20-25, 2023

Final Week of Classes	Mon - Sat	Dec. 11-16, 2023
Last Faculty Day	Friday	December 15, 2023
Classes End	Saturday	December 16, 2023
Grades Due	Monday	December 18, 2023
Holiday Break (Offices Closed)	Saturday - Monday	Dec. 23, 2023 - Jan. 1, 2024
All Staff Return	Tuesday	January 2, 2024

Fall I (Not CCCOnline)

Registration Begins	Monday	April 10, 2023
Faculty Professional Development Day	Thursday	August 17, 2023
Registration Ends	Friday	August 18, 2023
Session Begins	Monday	August 21, 2023
Schedule Adjustment Period	Mon-Tues	Aug. 21-22, 2023
End of Refund Period/Census	Monday	August 28, 2023
Labor Day Holiday	Monday	September 4, 2023
Last Day to Withdraw	Tuesday	October 3, 2023
Classes End	Saturday	October 14, 2023
Grades Due	Monday	October 16, 2023

Fall II (Not CCCOnline)

Registration Begins	Monday	April 10, 2023
Session Begins	Monday	October 16, 2023
Schedule Adjustment Period	Mon-Tues	Oct. 16-17, 2023
End of Refund Period/Census	Tuesday	October 24, 2023
Thanksgiving Break (No Classes)	Mon-Sat	Nov. 20-25, 2023
Last Day to Withdraw	Monday	December 4, 2023
Last Faculty Day	Friday	December 15, 2023

Classes End	Saturday	December 16, 2023
Grades Due	Monday	December 18, 2023
Spring 2024	202430	
Full Term Classes (Not CCCOnline)		
Registration Begins	Monday	November 6, 2023
All Staff Return	Tuesday	January 2, 2024
Chairs Return	Monday	January 8, 2024
Faculty Return	Wednesday	January 10, 2024
Tuition Due Date	Wednesday	January 10, 2024
Pre-drop for Non-Payment Warning	Wednesday	January 10, 2024
Faculty Professional Development Day	Thursday	January 11, 2024
Registration Ends	Friday	January 12, 2024
Full-Term Classes Begin	Monday	January 15, 2024
Schedule Adjustment Period	Monday - Friday	Jan. 15-19, 2024
Pre-drop for Non-Payment Warning	Wednesday	January 17, 2024
Pre-drop for Non-Payment Warning	Wednesday	January 24, 2024
Drop for Non-Payment	Tuesday	January 30, 2024
End of Refund Period/Census	Wednesday	January 31, 2024
Midterm	Monday - Saturday	Mar. 4-9, 2024
Spring Break ALL Campuses	Monday - Saturday	Mar. 18-23, 2024
Last Day to Withdraw	Wednesday	April 17, 2024
Final Week of Classes	Monday - Saturday	May 6-11, 2024
Last Faculty Day	Friday	May 10, 2024
Commencement (Pueblo and Fremont Campus)	Friday	May 10, 2024
Classes End	Saturday	May 11, 2024
Commencement (PCC Southwest)	Sunday	May 12, 2024

Grades Due	Monday	May 13, 2024
Spring I (Not CCCOnline)		
Registration Begins	Monday	November 6, 2023
Faculty Professional Development Day	Thursday	January 11, 2024
Registration Ends	Friday	January 12, 2024
Session Begins	Monday	January 15, 2024
Schedule Adjustment Period	Monday - Tuesday	Jan. 15-16, 2024
End of Refund Period/Census	Monday	January 22, 2024
Last Day to Withdraw	Tuesday	February 27, 2024
Classes End	Saturday	March 9, 2024
Grades Due	Monday	March 11, 2024
Spring II (Not CCCOnline)		
Registration Begins	Monday	November 6, 2023
Session Begins	Monday	March 11, 2024
Schedule Adjustment Period	Monday - Tuesday	Mar. 11-12, 2024
End of Refund Period/Census	Tuesday	March 19, 2024
Spring Break ALL Campuses	Monday - Saturday	Mar. 18-23, 2024
Last Day to Withdraw	Monday	April 29, 2024
Commencement (Pueblo and Fremont Campus)	Friday	May 10, 2024
Classes End	Saturday	May 11, 2024
Commencement (PCC Southwest)	Sunday	May 12, 2024
Grades Due	Monday	May 13, 2024

Degree and Certificate Programs

[Click here for more information on Degree and Certificate Programs](#)

Associate of Arts

[Click here for the Associate of Arts Degree Requirements](#)

Anthropology, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the [Personnel](#) page.

Career Opportunities

The Associate of Arts Degree with Designation in Anthropology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a bachelor's degree in anthropology. A degree in anthropology offers many career and educational opportunities. Careers in anthropology include museum education, field and medical research, higher-education teaching, public health, environmental assessment, community studies coordination, ethnic and cultural studies and field studies in archaeology.

Program Description

Anthropology is the study of the evolution of human society, life and culture. Specifically, anthropology answers the questions of how people lived, what they thought and how they interacted with their particular environment. Studying how societies have developed and changed from the past to the present, anthropology provides a critical understanding of the world today and how the future world may evolve.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with Designation in Anthropology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (32-33 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Writing course (GT-CO3) *

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1), prefer MAT 135

University of Colorado Denver

- University of Colorado Denver requires either: MAT 135 **or** MAT 121

Western State Colorado University

- Western State Colorado University requires MAT 121

Natural and Physical Sciences (8 Credits)

- Select two GT Pathway (GT-SC1) *

Arts and Humanities (6 Credits)

Select two GT Pathway courses from any category:

- Arts and Humanities (GT-AH1) *
- Literature and Humanities (GT-AH2) *
- Ways of Thinking (GT-AH3) *
- Foreign Languages (GT-AH4) *

Social and Behavioral Sciences (6 Credits)

(Select two GT Pathway courses from any category):

- Economics or Political Systems: (GT-SS1) *
- Geography (GT-SS2) *
- Human Behavior, Culture, or Social Frameworks: (GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT- HI1) *

Additional Required Anthropology Courses (22 Credits)

Please Note: Additional ANT courses beyond the four courses (13 credit hours) identified above may not count toward the Anthropology major at the receiving 4-year institutions.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 107 - Introduction to Archaeology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. The course provides a survey of the archaeology of different areas of the Old and New Worlds, the works of selected archaeologists, and major archaeological theories. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

Arts and Humanities (3 Credits)

Select one GT Pathway course from any category:

- Arts and Humanities (GT-AH1) *
- Literature and Humanities (GT-AH2) *
- Ways of Thinking (GT-AH3) *
- Foreign Languages (GT-AH4)

ANT course (3 Credits)

- Select one additional GT Pathway course: Social and Behavioral Science (GT-SS3) *

Social and Behavioral Sciences (3 Credits)

(Select on GT Pathway course from any category):

- Geography (GT-SS2) *
- Human Behavior, Culture, or Social Frameworks: (GT-SS3) *

Electives (5-6 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado State University-Ft. Collins (B.A. Anthropology)
- Fort Lewis College (B.A. Anthropology)
- Metropolitan State University of Denver (B.A. Anthropology)
- University of Colorado, Boulder (B.A. Anthropology)
- University of Colorado, Colorado Springs (B.A. Anthropology)
- University of Colorado, Denver (B.A. Anthropology)
- University of Northern Colorado (B.A. Anthropology)
- Western State Colorado University (B.A. Anthropology)

Art History, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Art History prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) or Bachelor of Fine Arts (BFA) degree in Art or Art History. Students who opt for the Bachelor of Arts in Art History can choose to work in several occupational fields including museums, galleries, government, research and academia. Once a BA or BFA is completed, students may pursue a higher or graduate degree in Art, if interested.

Program Description

This program introduces the student to the field of Art History and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well as specific courses in various subfields of Art History. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Art History will be ready to complete the last half of a BA or BFA in Art History at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31-32 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Approved (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT-MA1) *, prefer MAT 120: Mathematics for the Liberal Arts

Natural and Physical Sciences (7 or 8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. One of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities Courses from any category (GT-AH1, GT-AH2, GT-AH3, GTAH4) *, **EXCEPT** those courses listed in the additional required courses section below.

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Art History Courses (18 Credits)

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 121 - Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Investigates the various approaches and media that students need to develop drawing skills and visual perception.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

Electives (10-11 Credits)

Determined by transferring institution;

Note: Students planning to transfer to Colorado State University-Fort Collins will be required to complete a 200-level foreign language for completion of the BA in Art History.

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Colorado Mesa University (B.F.A. Art, Art History concentration)
- Colorado State University-Ft. Collins (B.A. Art, Art History concentration)
- Colorado State University-Pueblo (B.A. Art; Art History Emphasis)
- Metropolitan State University of Denver (B.A. Art History, Theory, and Criticism)
- University of Colorado, Boulder (B.A. Art History)
- University of Colorado, Colorado Springs (B.A. Visual and Performing Arts, Art History option)
- University of Colorado, Denver (B.A. Fine Arts, Art History emphasis)
- University of Northern Colorado (B.A. Art and Design, Art History emphasis)
- Western State Colorado University (B.A. Art, Art History and Theory emphasis)

Business, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Business prepares students to transfer to a bachelor's degree business program.

Program Description

Students who complete an AA degree and the prescribed curriculum in the articulation agreement and are admitted (with no academic deficiencies that require additional coursework) to a receiving institution participating in this agreement are guaranteed the following:

Junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in the degree program covered by this articulation agreement. Completion of the curriculum prescribed within this statewide articulation agreement does not guarantee admission to a participating receiving institution.

Program Requirements

Students must meet all admission and application requirements at the receiving institution including the submission of all required documentation stated deadlines. In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Business advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with Designation in Business, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (37 Credits)

Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (8 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

or

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 or GT-SC2), one must be with laboratory (GT-SC1) *

Arts and Humanities (6 Credits)

(Select two courses from any category):

- Arts and Expression: Select from a GT Pathways Arts and Expression course (GT-AH1) *
- Literature and Humanities: Select from a GT Pathways Literature and Humanities course (GT-AH2) *
- Ways of Thinking: Select from a GT Pathways Ways of Thinking course (GT-AH3) *
- Foreign Languages: Select from a GT Pathways Foreign Languages course (GT-AH4) *

Social and Behavioral Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (23 Credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course

examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Business Administration, emphasis in Advertising, Business Teacher Education, General Business or International Business; B.S. Business Administration, emphasis in Accounting, Agribusiness, Economics, Finance, General Business, Health Care Administration, Management, Management Information Systems, Marketing, or Small Business Management)
- Colorado Mesa University (Bachelor of Business Administration (B.B.A.) concentrations in Business Economics, Emerging Markets, Energy Management/Landman, Entrepreneurship, Finance, Hospitality Management, Human Resource management, Information Systems, Insurance, Management, Managerial Informatics, or Marketing)
- Colorado Mountain College (as four-year institution) (B.S. Business Administration)
- Colorado State University-Ft. Collins (B.S. Business Administration)

- Colorado State University – Global Campus (B.S. Accounting, Business management, Healthcare Administration and management, Human Resource Management, Information Technology Management, Management Information Systems and Business Analytics, Marketing, Project Management)
- Colorado State University-Pueblo (B.S. Business Administration, majors in Management, Accounting, or Economics)
- Fort Lewis College (B.A. Business Administration, Business Administration option)
- Metropolitan State University of Denver (B.S. Accounting, Computer Information Systems, Finance, Management, Marketing)
- University of Colorado, Boulder (B.S. Business Administration)
- University of Colorado, Colorado Springs (B.S. Business, emphasis in Accounting, Business Administration, Finance, Human Resources Management, Information Systems, International Business, Management, Marketing PGA Golf Management, Service Management, or Sport Management)
- University of Colorado, Denver (B.S. Business Administration, emphasis in Accounting, Finance, Financial Management, Human Resources Management, Information Systems, International Business, Management, or Marketing)
- University of Northern Colorado (B.S. Business Administration, all emphasis)
- Western State Colorado University (B.A. Business Administration)

Communication, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Communication prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) degree in Communication. Students who opt for the Bachelor of Arts in Communication can choose to work in several occupational fields, including business, advertising, education, media, journalism or public relations. Once a BA is completed, students may pursue a higher or graduate degree in Communication, if interested.

Program Description

This program introduces the student to the discipline of Communication and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Communication. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Communication will be ready to complete the last half of a BA in Communication at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GTMA1) *, prefer MAT 120: Mathematics for the Liberal Arts

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. At least one of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing

effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

- select one other GT Pathways Social and Behavioral course from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Communication Courses (18 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 217 - Group Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation. GT-SS3

- Select one three-credit course with a COM prefix **Credit(s): 3**

Select two GT Pathways courses from either: (6 Credits)

- History (GT-HI1) *, **or** Social and Behavioral Sciences (GT-SS1, GT-SS2, **or** GT-SS3) *

Electives (11 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Colorado State University-Ft. Collins (B.A. Communication Studies)
- Colorado State University-Global Campus (B.S. Communication)

- Metropolitan State University of Denver (B.A. Speech Communication, Organizational Communication emphasis)
- University of Colorado, Boulder (B.A. Communication)
- University of Colorado, Colorado Springs (B.A. Communication, General Communication Studies emphasis)
- University of Colorado, Denver (B.A. Communication)
- University of Northern Colorado (B.A. Communication Studies)
- Western State Colorado University (B.A. Communication Arts, Communication emphasis)

Computer Information Systems, AGS (with Transfer Articulation Agreement)

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The AGS degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program teaches you basic networking, programming and database technologies, as well as technical aspects of the Internet and data communications. The Associate of General Studies Degree with an emphasis in Computer Information Systems prepares you to transfer to a university as a junior to pursue a bachelor's degree in Computer Science or Computer Information Systems. Please check with the university of your choice to assure transferability of all courses.

Total Credits: 60

General Education Course Requirements (30 Credits)

Written and Oral Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Physical & Life Sciences (8 Credits)

Courses with Required Lab:

Choose two courses:

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

ENV 101 - Environmental Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources, pollution and environmental protection. Using a holistic approach, students will study how the foundations of natural sciences interconnect with the environment. This course includes laboratory experience.

GEO 111 - Physical Geography: Landforms with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces students to the principles of Earth's physical processes, emphasizing landforms, soils and hydrology. Examines the formation and distribution of landforms, such as mountains, valleys and deserts, and their shaping by fluvial and other processes. The course incorporates an integrated process of lectures, discussion and laboratory assignments.

GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the principles of meteorology, climatology, world vegetation patterns and world regional climate classification. The course includes investigating the geographic factors which influence climate, such as topography, location, elevation, winds and latitude.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

GEY 135 - Environmental Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Introduces the subject of geology as it relates to human activities. Geologic hazards such as floods, landslides, earthquakes, and volcanoes are investigated. Mineral, energy, soil, and water resources are discussed in terms of their geologic formation and identification, usage by society, and associated environmental impacts. Land use issues, waste, and pollution are also examined.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 107 - Energy Science & Technology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Explores the science of energy and energy technologies, with a focus on renewable energy resources and clean technologies. It provides a background in the physics of energy, energy transfer and the current state of technology. Students will evaluate the future utilization of renewable technologies. Activities may include investigating conservation of energy, mechanical, electrical, heat and fluid power systems; energy transfer and loss; understanding energy audits; testing solar collectors and wind generators; and investigating hydrogen fuel cells. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Social Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

Choose One Course from the Following (3 Credits)

Arts and Expression

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 121 - Music History Medieval Thru Classical Period: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music from the Middle Ages into the Classical period, including styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 122 - Music History Early Romantic Period to the Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music connecting the classical period to the Romantic period and following to the present. This course includes the study of styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 125 - History of Jazz: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of jazz history covering the basic materials of music and the forms, media, genres, and the historical and cultural framework of each style period. This course emphasizes the building of critical listening tools and the development of a jazz music vocabulary. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 211 - Development of Theatre Greek-Renaissance: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 212 - Development of Theatre Restoration to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 215 - Playwriting: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Gives students the opportunity to learn and practice playwriting techniques, thereby improving creative writing skills. Elements of dramatic structure, dialogue, styles and theatrical practices are emphasized. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

Literature and Humanities

HUM 103 - Introduction to Film Art: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Studies the relationships among film's stylistic systems, narrative systems and audience reception. Students view, discuss and critically analyze a variety of films which represent a variety of genres and themes. The course incorporates the vocabulary of stylistic systems (for instance, cinematography and editing) and narrative systems (for instance, story

structure and character motivation) as both relate to the kinds of meanings a film conveys. This course is approved as part of the Colorado Statewide Guaranteed transfer curriculum: GT-AH2.

HUM 115 - World Mythology: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces students to a multidisciplinary approach to world mythology. Common themes are illustrated and connected to religion, philosophy, art, literature, music and contemporary culture. In addition, students will study various ways of interpreting myth. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 121 - Humanities: Early Civilization: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the prehistoric to the early medieval era. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 122 - Humanities: Medieval - Modern: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the medieval to the early modern era. This is a statewide Guaranteed Transfer course in the GT-AH2 category. GT-AH2

HUM 123 - Humanities: Modern World: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 205 - Ethnic Literature: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Focuses on significant texts by ethnic Americans, including African-American, Native American, Latino/a and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 212 - American Literature After Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the mid-19th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 225 - Introduction to Shakespeare: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 246 - Literature of Women: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the techniques and themes in literature by and about women by examining women's issues from various genres. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

Ways of Thinking

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 114 - Comparative Religions: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the major world religions from both the Eastern and Western world such as Hinduism, Buddhism, Confucianism, Taoism, Zoroastrianism, Judaism, Christianity, Islam, Bahá'í and influential preliterate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological) to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 115 - World Religions-West: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to religions of the Western world: Zoroastrianism, Judaism, Christianity, Islam, Bahá'í, and influential pre-literate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological), to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets, and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 218 - Environmental Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Critically analyzes theories of value of the natural world. Topics include the relation between scientific and moral principles; theories of the moral worth of persons, animals, plants and other natural objects; historical, religious and cultural influences on conceptions of nature; alternative accounts of human relationships and responsibilities to nature, including deep ecology and eco-feminism; and the connection between moral and political values and economic policies. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 220 - Philosophy of-Death and Dying: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Explores the major philosophical questions surrounding death and dying: the metaphysical arguments for and against the existence of a soul and life after bodily death; the epistemological assessment of arguments for the soul and life after death; the ethical justifications taken on positions such as rational suicide and physician assisted suicide, as well as a focus on philosophy's existentialist contribution to questions about the meaning of life and the meaning of death. This course is one of the statewide Guaranteed Transfer courses. GT-AH3.

Core Curriculum Requirements (27 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

Electives (3 Credits)

(Choose from List)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

or

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

or

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

or

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

or

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Criminal Justice, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Criminal Justice prepares students to transfer as juniors to a four-year institution in Colorado to pursue a bachelor's degree in criminal justice. Graduates can seek a career in federal, state and local criminal justice agencies. This includes correctional institutions, juvenile corrections and varied treatment facilities, law enforcement agencies, courts, private security and forensic investigation work.

Program Description

Courses in the criminal justice degree provide an in-depth analysis of the three main components of the criminal justice system, law enforcement, the judicial system and corrections, with special emphasis on criminology, substantive criminal law and constitutional law. The AA degree coursework requires students learn reading and comprehension skills, written and verbal communication skills, and cultural diversity awareness.

Program Requirements

Students must meet all admission and application requirements at the receiving institution including the submission of all required documentation stated deadlines. In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Criminal Justice advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer. To earn an AA degree with Designation in Business, you must complete at least 60 college-level credits, as described below:

Disclaimer

If you have any prior arrests and/or drug/alcohol history, you should discuss this history with a Criminal Justice advisor prior to beginning courses toward this degree. Neither PCC nor the Criminal Justice Department or advisors will be held liable for your decision to continue in pursuit of the degree if you have such a history. Many criminal justice employers will not hire students with a past history of arrests or convictions regardless of the type of offense.

Your entrance into any criminal justice course of study, or your subsequent graduation, is no guarantee, explicit or implied, that you are employable in the criminal justice field.

Many criminal justice and related agencies require certain standards prospective employees must meet at the application stage. Job applications will ask if you have ever been arrested for any offense, either misdemeanor or felony. If you have, your prospective employer may deny your application. You may also be required to take psychological tests, lie detector tests, medical tests and physical fitness tests to determine if you are suited to a particular position.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31-33 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1, prefer MAT 13: Introduction to Statistics, except:

University of Colorado

- University of Colorado - Colorado Springs **prefers** MAT 120 - Mathematics for the Liberal Arts: GT-MA1;

Colorado Mesa University

- Colorado Mesa University **requires** either MAT 120 - Mathematics for the Liberal Arts: GT-MA1 **or** MAT 121 - College Algebra: GT-MA1;

University of Northern Colorado

- University of Northern Colorado **requires** MAT 135 - Introduction to Statistics: GT-MA1

Natural and Physical Sciences (7-8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 **or** GT-SC2) * At least one of these courses must include a laboratory component (GT-SC1) *

Arts & Humanities (6 Credits)

(Select two courses from two different categories):

- GT-AH1, GT-AH2, GT-AH3, GT-AH4 *

Social and Behavioral Sciences (6 Credits)

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- select one additional GT Pathways Human Behavior, Culture, or Social Frameworks course (GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (27 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 125 - Policing Systems

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): CRJ 110.

Examines policing in the United States, including historical foundations, emerging issues and the relationship between law enforcement and the community. The various types of law enforcement agencies, their administrative practices, and the behavior of those involved in the delivery of police services are examined from the perspective of democratic values, racial and ethnic diversity, and societal perceptions of police effectiveness. Career requirements, including current and future trends, are also presented.

CRJ 145 - Correctional Process

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Examines the history and total correctional process from law enforcement through the administration of justice, probation, prisons, correctional institutions and parole. Also examines the principles, theories, phenomena and problems of the crime, society and the criminal justice system from the perspective of criminology and the criminal justice system in general. Emphasizes the role of sociology and other interdisciplinary approaches to the field of corrections and society's response.

Choose Two Courses from the Following (6 Credits)

CRJ 135 - Judicial Function

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Provides an overview of the structure and function of the dual American judicial system and the behavior of actors (judges/justices, lawyers, law clerks, interest groups, etc.) within the system. Emphasis is placed on the organization and administration of state and federal courts, criminal court procedures, juries, selection of judges, decision-making behavior of juries, judges and justices, and the implementation and impact of judicial policies.

CRJ 205 - Principles of Criminal Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110, CRJ 125, CRJ 135, CRJ 145, and ENG 121.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 122.

Focuses on common law and statutory law crimes, the Model Penal Code, elements defining crimes and penalties, defenses to criminal accusations, and definitions and distinctions between criminal and civil law.

CRJ 230 - Criminology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 145.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Provides an introduction to the study of crime, understanding the causes of crime, and examines, theoretical frameworks and theories to explain criminal behavior. Within a social context, consideration is given to how theories have emerged and understand how social context contributes to explanations of crime. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

Choose Three Courses from the Following (9 Credits)

Note: If these courses are applied to this second section of the Prescribed Curriculum (Additional Required Courses) for credit, they may **not** be applied to the first section of the Prescribed Curriculum (General Education Requirements) for credit.

CNG 258 - Digital Forensics

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): CNG 124.

Corequisite(s): CIS 220.

Exposes the student to the field of digital computer forensics and investigation. This class provides the student with methods to properly conduct a digital forensics investigation including a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analyses.

COM 217 - Group Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation. GT-SS3

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 125 - American State and Local Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the structure and function of state, county and municipal governments, including their relations with each other and with national government. Includes a study of Colorado government and politics. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

PSY 207 - Intro to Forensic Psychology

Credit(s): 3

Lecture Hour(s): 3

Introduction to Forensic Psychology is a course in an overview of Forensic Psychology. As such it explores both current research and practice in five areas. These areas are police psychology, criminal psychology, victimology, correctional psychology and the interface of psychology and the courts. The course facilitates an understanding of the numerous careers related to forensic psychology, how to prepare for them and current research and practice in each of the five broad areas of forensic psychology.

PSY 217 - Human Sexuality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Surveys physiological, psychological and psychosocial aspects of human sexuality. Topics include relationships, sexual identity and sexual health. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Electives (0-2 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado Mesa University (B.A. Criminal Justice; Criminal Justice or Law Enforcement concentrations)
- Colorado State University – Global Campus (B.S. Criminal Justice and Law Enforcement Administration; B.S Human Services)
- Metropolitan State University of Denver (B.S. Criminal Justice & Criminology)
- University of Colorado, Colorado Springs (B.A. Criminal Justice)
- University of Colorado, Denver (B.A. Criminal Justice)
- University of Northern Colorado (B.A. Criminal Justice)

Early Childhood Teacher Education, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Early Childhood Education (ECE) program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an early childhood teacher or director in the field of early childhood education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Before beginning to take classes, you must meet with PCC's Teacher Education faculty advisor to plan a course of study and to examine the list of approved credits for each four-year institution in Colorado.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

Total Credits: 60

General Education Core Requirements (33 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (4 Credits)

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors.

Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (6 Credits)

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

or

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

or

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 225 - Introduction to Shakespeare: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

Social and Behavioral Sciences (6 Credits)

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

History (3 Credits)

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

or

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Additional Required Courses (18 Credits)

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 256 - Working with Parents, Families, and Community Systems

Credit(s): 3

Lecture Hour(s): 3

Examines 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. Effective activities and resources to support family involvement in the classroom will be created. This course addresses children ages birth through 8 years.

Electives (6 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Early Childhood Education)
- Colorado Mesa University (B.A. Early Childhood Education – Early Childhood Special Education)
- Colorado State University-Fort Collins, (B.S. Early Childhood Education)
- Colorado State University-Pueblo (B.S., Early Childhood Education)
- Fort Lewis College (B.A. Early Childhood Education)
- Metropolitan State University of Denver (B.A. Early Childhood Education)
- University of Colorado, Denver (B.A. Education and Human Development - Early Childhood)
- University of Northern Colorado (B.A. Early Childhood Teacher Education (Birth-Grade 3))

Economics, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Economics prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a bachelor's degree in economics. Bachelor degree curriculums allow students to prepare for graduate school, for teaching careers, or for employment in areas that require economic analysis, such as actuarial science, investment banking, finance or statistics. Students would also be prepared to work in commercial banks, finance companies and insurance companies.

Program Description

The Associate of Arts Degree with Designation in Economics is designed for students who want to transfer to a four-year college or university to pursue a baccalaureate degree in economics. Completion of the AA degree completes the first two years of an economics bachelor's degree and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in economics.

Program Requirements

In addition to the requirements listed below, you must:

1. Earn a minimum of 60 semester hours of course work
2. Earn a minimum of 15 graded semester hours at PCC
3. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC business advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with Designation in Economics, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (37 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 **or** GT-SC2), one must be a laboratory (GT-SC1) *

Arts and Humanities (9 Credits)

(Select three courses from any category):

- GT-AH1, GT-AH2, GT-AH3, GT-AH4 *

Social and Behavioral Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Electives (20 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.S. Business Administration; Economics emphasis)
- Colorado State University-Fort Collins (B.A. Economics)
- Fort Lewis College – (B.A. Economics; Economics option)
- Metropolitan State University of Denver (B.A. Economics)
- University of Colorado, Boulder (B.A. Economics)
- University of Colorado, Colorado Springs (B.A. Economics)
- University of Colorado, Denver (B.A. Economics)
- University of Northern Colorado (B.A. Economics)
- Western State Colorado University (B.A. Economics)

Elementary Teacher Education, AA (with Transfer Articulation Agreement)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts degree with an emphasis in Elementary Education prepares you to transfer as a junior to a four-year institution in Colorado in order to become an elementary teacher.

Program Description

This program introduces you to the field of education. The course work comprises general education requirements common to all Colorado two- and four-year institutions. It also meets appropriate Colorado Model Content standards for elementary education. Upon transfer, if you have earned the AA degree with an emphasis in Elementary Education, you will be ready to apply for admission to a four-year institution's teacher education program.

Before beginning to take classes, you must meet with PCC's teacher education faculty advisor to plan a course of study and to examine the list of approved credits for each four-year institution in Colorado.

Students interested in majoring in education need to identify the four-year college/university to which they plan to transfer. Each individual institution requires different curriculum electives for graduation.

There are no current statewide articulation agreements in secondary or K-12 education, but students can still effectively pursue these options at PCC.

Emphasis in Elementary Education (Grades K-6)

If you want to teach grades K through 6, you may pursue an Associate of Arts degree with Elementary Education emphasis.

Emphasis in Secondary Education (Grades 7-12)

If you want to teach grades 7 through 12, you should identify the four-year college or university to which you intend to transfer and the appropriate curriculum. You may pursue an Associate of Arts degree with Secondary Education emphasis in one of the following licensure areas:

- English
- Math
- Science
- Social Science (History/Political Science)
- Spanish

Emphasis in K-12 Education

If you would like to teach in the K-12 content areas of art, music or physical education, you should pursue an Associate of Arts degree at PCC. Your advisor will help you select the electives that will be required for your bachelor's degree.

Total Credits: 60

General Education Core Requirements (32 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (6 Credits)

MAT 155 - Integrated Math I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 050.

Engages students in the concepts of school mathematics, including the recognition of numerical and geometric patterns and their application to a variety of mathematical situations; mathematical problem-solving, reasoning, critical thinking, and communication; algebraic thinking, representation, analysis, manipulation, generalizations and extensions. (This course is only offered in the fall semester.)

MAT 156 - Integrated Math II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 155.

Furtheres MAT 155 concepts and will include fundamentals of probability, statistics and Euclidean geometry. Mathematical problem-solving, reasoning, critical thinking and communication will continue to be an integral part of this sequence. (This course is only offered in the spring semester.)

Natural and Physical Sciences (8 Credits)

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts

to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (3 Credits)

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

Social and Behavioral Sciences (6 Credits)

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

History (3 Credits)

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

Education Requirements (9 Credits)

Please note: If these credits are not required for the major at a receiving 4-year institution, they will be applied to the bachelor's degree as elective credits towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

EDU 221 - Introduction to Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on the historical, social, political, philosophical, cultural and economic forces that shape the United States public school system. Includes current issues of educational reform, technology as it relates to education and considerations related to becoming a teacher in the state of Colorado. Special interest will be paid to the topic of diversity in the K-12 school system.

PSY 238 - Child Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the growth and development of the individual from conception through childhood, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Other Required Courses (19 Credits)

Determined by transferring institution.

Students must meet with an academic advisor to determine which specific other courses are required pertaining to their emphasis area and transfer institution.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education: Adams State University (B.A. Interdisciplinary Studies)

- Colorado Mesa University (B.A. Liberal Arts)
- Colorado Mountain College (B.A. Interdisciplinary Studies)
- Colorado State University-Pueblo (B.S. Liberal Studies)
- Fort Lewis College (B.A. Elementary Education)
- Metropolitan State University of Denver (B.A. Human Development, B.A. Elementary Education)
- University of Colorado, Boulder (B.A. Elementary Education)
- University of Colorado, Colorado Springs (B.A. Inclusive Elementary Education, B.A. Biology, B.A. English Literature, B.A. Geography and Environmental Studies, B.A. History, or B.A. Spanish)
- University of Colorado, Denver (B.A., Elementary Education emphasis; B.A. Education and Human Development – Elementary Education)
- University of Northern Colorado (B.A. Elementary Education)
- Western State Colorado University (B.A. Elementary Education, CLD emphasis)

English, Literature Emphasis, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in English prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) degree in English. Students who opt for the Bachelor of Arts in English can choose to work in a wide variety of occupational fields including teaching, journalism, law, publishing, medicine and the fine arts. Once a BA is completed, students may pursue a higher or graduate degree in English, if interested.

Program Description

This program introduces the student to the discipline of English and includes the course work to meet general education requirements that are common to all Colorado four-year institutions. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in English will be ready to complete the last half of a BA in English at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and**

ENG 201 - Composition III: Writing for Public Discourse GT-CO3

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ENG 122 with a grade of C or better.

Provides students with skills necessary to enter into higher-level undergraduate academic discourse or professional workplace writing. ENG 201 extends students' rhetorical knowledge and develops critical reading, thinking and writing strategies in multiple specialized areas of discourse beyond what they encounter in ENG 122. In ENG 201, students deepen their rhetorical and writing skills by learning to analyze, synthesize and summarize complex texts and incorporate this information into specific writing conventions for a defined discipline. As a more advanced composition course, ENG 201 provides interested students with the opportunity to continue their exploration of expository writing with the added benefit of learning to write for distinct audiences (format, language, level of specificity, length and documentation style). Students will also learn effective editing and revising techniques, discipline-specific writing strategies, and how to extend their mastery of rhetorical strategies. While ENG 201 may be taught with the focus in a variety of disciplines (science writing, gender studies, literary criticism, writing in the humanities, business writing, political geography, philosophy, and so on), every discipline will allow students the opportunity to learn how to communicate with specialized audiences and adapt content to the needs of varying rhetorical situations.

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT- MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1) *. At least one of these courses must include a laboratory component (GT-SC1) *.

Arts and Humanities (9 Credits)

Note: Courses from the Literature and Humanities category (GT-AH2) may **not** be used to meet this requirement.

- Select three GT Pathways Arts and Humanities courses

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Courses (18 Credits)

Verbal Communication (3 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations.

Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Select five GT Pathways Arts and Humanities Literature (LIT) courses within the GT-AH2 category (15 Credits)

Note: Students are required to take a total of five (5) LIT courses (15 credits), four (4) of which must be at the 200-level. Please consult with your receiving institution regarding best choices for literature courses.

Electives (8 Credits)

Determined by transferring institution.

Recommended elective:

ENG 221 - Creative Writing I

Credit(s): 3

Lecture Hour(s): 3

Teaches techniques for creative writing. Explores imaginative uses of language through creative genres (fiction, poetry, literary nonfiction) with emphasis on the student's own unique style, subject matter and needs.

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.A. English, Liberal Arts emphasis)
- Colorado Mesa University (B.A. English, Literature concentration)
- Colorado State University-Fort Collins (B.A. English)
- Colorado State University-Pueblo (B.A. English)
- Ft. Lewis College (B.A. English, General Option)
- Metropolitan State University of Denver (B.A. English)
- University of Colorado, Boulder (B.A. English)
- University of Colorado, Colorado Springs (B.A. English)
- University of Colorado, Denver (B.A. English, Literature emphasis)

- University of Northern Colorado (B.A. English, Liberal Arts emphasis)
- Western State Colorado University (B.A. English)

History, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in History prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in history. Students who opt for a bachelor's degree in history can choose to work in several occupational fields including education at multiple levels, historical and/or corporate research, public history and many other related areas of social sciences. Once a BA is completed, students may pursue a higher or graduate degree in history, if interested.

Program Description

The Associate of Arts Degree with Designation in History introduces students to the field of history and includes the course work to meet general education requirements that are common to all Colorado four-year institutions. The degree is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in history. Completion of the AA degree completes the first two years of a bachelor's degree in history, and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in history.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with a designation in history, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (3 Credits)

- Select from a GT Pathways Mathematics course (GT-MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

One of these courses must include a laboratory component

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 **or** GT-SC2) *

Arts and Humanities (9 Credits)

- Select three from a GT Pathway course from any category (GT-AH1, GT-AH2, GT-AH3, **or** GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two from a GT Pathway course from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on

developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Additional Required History Courses (15 Credits)

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

- Choose one additional GT Pathways HIS course (GT-HI1) *

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Electives (11 Credits)

Determined by transferring institution

Note: Students planning to transfer to University of Colorado Boulder must take either HIS 101 or HIS 102 to fulfill this requirement.

Students planning to transfer to CSU-Fort Collins are advised to complete at least two semesters of one college-level foreign language.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. History, Anthropology, & Political Science: History)
- Colorado Mesa University (B.A. History; History or Secondary Education concentrations)
- Colorado State University-Ft. Collins (B.A. History; General History concentration)
- Colorado State University-Pueblo (B.A. History; General emphasis; B.S. History; General emphasis)
- Fort Lewis College (B.A. History; United States Option)
- Metropolitan State University of Denver (B.A. History)
- University of Colorado, Boulder (B.A. History)
- University of Colorado, Colorado Springs (B.A. History)
- University of Colorado, Denver (B.A. History)
- University of Northern Colorado (B.A. History; Liberal Arts emphasis)
- Western State Colorado University (B.A. History)

Philosophy, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Philosophy prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) degree in Philosophy. Students who opt for the Bachelor of Arts in Philosophy can choose to work in several occupational fields, including law, government, business, science, clergy, teaching and academia. Once a BA is completed, students may pursue a higher or graduate degree in Philosophy, if interested.

Program Description

This program introduces the student to the field of Philosophy and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well as specific courses in various subfields of Philosophy. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Philosophy will be ready to complete the last half of a BA in Philosophy at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT-MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. At least one of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Philosophy Courses (15 Credits)

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C– grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

Choose Two Courses from the Following: (6 Credits)

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 218 - Environmental Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Critically analyzes theories of value of the natural world. Topics include the relation between scientific and moral principles; theories of the moral worth of persons, animals, plants and other natural objects; historical, religious and cultural influences on conceptions of nature; alternative accounts of human relationships and responsibilities to nature, including deep ecology and eco-feminism; and the connection between moral and political values and economic policies. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 220 - Philosophy of-Death and Dying: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Explores the major philosophical questions surrounding death and dying: the metaphysical arguments for and against the existence of a soul and life after bodily death; the epistemological assessment of arguments for the soul and life after death; the ethical justifications taken on positions such as rational suicide and physician assisted suicide, as well as a focus on philosophy's existentialist contribution to questions about the meaning of life and the meaning of death. This course is one of the statewide Guaranteed Transfer courses. GT-AH3.

Electives (14 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Colorado State University-Fort Collins (B.A. Philosophy, General Philosophy concentration)
- Fort Lewis College (B.A. Philosophy)

- Metropolitan State University of Denver (B.A. Philosophy)
- University of Colorado, Boulder (B.A. Philosophy)
- University of Colorado, Colorado Springs (B.A. Philosophy)
- University of Colorado, Denver (B.A. Philosophy)
- University of Northern Colorado (B.A. Philosophy)

Political Science, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Political Science prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in political science. Students who opt for a bachelor's degree in political science may choose to work in federal, state and local governments, law, business, international organizations, nonprofit organizations, campaign management and polling, journalism, electoral politics, research or education. Once a BA is completed, students may pursue a higher or graduate degree in political science if interested.

Program Description

The Associate of Arts Degree with Designation in Political Science includes the course work to meet general education requirements that are common to all Colorado four-year institutions. The degree is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in political science. Completion of the AA degree completes the first two years of a bachelor's degree and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in political science.

Program Requirements

In addition to the requirements listed below, you must:

- Earn a minimum of 60 semester hours of course work
- Earn a minimum of 15 graded semester hours at PCC
- Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with a designation in political science, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (32 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (3 Credits)

- Select from a GT Pathways Mathematics course (GT-MA1), prefer MAT 135 *

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1) *

Arts and Humanities (6 Credits)

Select two GT Pathway courses from any category

- (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Political Science Courses (12 Credits)

POS 105 - Introduction to Political Science: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and nondemocratic governments and processes, and international relations. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

- POS 205 - OFFERED ONLINE
- POS 225 - OFFERED ONLINE

Electives (16 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. History, Anthropology, & Political Science: Political Science)
- Colorado Mesa University (B.A. Political Science)
- Colorado State University-Fort Collins (B.A. Political Science)
- Colorado State University-Pueblo (B.A. Political Science; B.S. Political Science)
- Fort Lewis College (B.A. Political Science)
- Metropolitan State University of Denver (B.A. Political Science)

- University of Colorado, Boulder (B.A. Political Science)
- University of Colorado, Colorado Springs (B.A. Political Science)
- University of Colorado, Denver (B.A. Political Science)
- University of Northern Colorado (B.A. Political Science)
- Western State Colorado University (B.A. Politics & Government)

Psychology, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Psychology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in psychology. Much of the coursework for BA and BS degrees in psychology tends to overlap (for example, social science requirements and core courses), but those with a BA degree are geared toward more modern scientific psychology – how we adapt to rapidly changing social and physical environments. Students who opt for the Bachelor of Arts in Psychology can choose to work in the human services field (crisis intervention or case management) or in business areas (human resources, personnel or management). Once a BA is completed, students may pursue a higher degree in psychology, if interested.

Program Description

This program introduces the student to the field of psychology and includes the coursework to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of psychology. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Psychology will be ready to complete the last half of a BA in Psychology at a four-year institution.

Program Requirements

In addition to the requirements listed below, you must:

- Earn a minimum of 60 semester hours of course work
- Earn a minimum of 15 graded semester hours at PCC
- Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with a designation in psychology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34-36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT C03 course

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1), prefer MAT 135 - Introduction to Statistics: GT-MA1, except:

Colorado Mesa University

- Colorado Mesa University requires either MAT 120; or MAT 121;

Colorado State University-Pueblo

- Colorado State University-Pueblo prefers MAT 121;

Fort Lewis College

- Fort Lewis college requires MAT 135;

University of Colorado Boulder

- University of Colorado Boulder requires MAT 121 or higher;

University of Colorado, Colorado Springs

- University of Colorado, Colorado Springs requires MAT 121;

Western State Colorado University

- Western State Colorado University requires MAT 121

Natural and Physical Sciences (7-8 Credits)

- One GT Pathways Biology course. Must be GT-SC1 course with lab
- One GT Pathways GT-SC1 course of the student's choosing.

Arts and Humanities (9 Credits)

No more than two courses from any one category

- Select three GT Pathways Arts & Humanities Courses (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- (Select two GT Pathways Social & Behavioral Science courses (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathway course (GT-HI1) *

Additional Required Psychology Courses (18 Credits)

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Three GT Pathways Psychology courses (GT-SS3) **Credits(s): 9 ***

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Electives (6-8 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Psychology; Developmental, Clinical, Sport Psychology, or Psychology emphasis)
- Colorado Mesa University (B.A. Psychology; Psychology or Counseling Psychology concentrations)
- Colorado State University-Pueblo (B.A. Psychology)
- Fort Lewis College (B.A. Psychology)
- Metropolitan State University of Denver (B.A. Psychology)
- University of Colorado, Boulder (B.A. Psychology)
- University of Colorado, Colorado Springs (B.A. Psychology)
- University of Colorado, Denver (B.A. Psychology)
- University of Northern Colorado (B.A. Psychology)
- Western State Colorado University (B.A. Psychology)

Public Health, Dwd

See list of Department Chairs on the Personnel page.

Total Credits: 62

Fall-Year 1 (15)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Spring-Year 1 (17)

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

Fall-Year 2 (14)

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Spring-Year 2 (16)

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 240 - Health Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the scientific study of attitudes, behaviors, and personality variables related to health, illness, and bodily systems. The course emphasizes the interaction of biological, psychological, and social factors that cause illness and influence its treatment and prevention. This is a statewide Guaranteed Transfer course in the GT-SS3 category. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 205 - Sociology of Family Dynamics: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles. This course is one of statewide Guaranteed Transfer courses, GT-SS3.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

Social Work, AA (with Transfer Articulation Agreement)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts degree with an emphasis in Social Work prepares students to transfer as a junior to a four-year institution in order to earn a bachelor's degree in social work. Social workers are professionals who are specially trained to work with people to provide a variety of services to individuals, families, groups or even communities. Social workers are employed in many different settings including schools, corrections, victims programs, child welfare, nursing homes, foster care agencies, domestic violence shelters and homeless programs.

Program Description

This program introduces students to the field of social work and includes general education requirements as well as specific courses in the area of social work. The courses included in this program are part of an articulation agreement with Colorado State University-Pueblo. Upon transfer to CSU-Pueblo, students who have earned the AA degree with an emphasis in social work will be ready to apply for admission to the social work program.

Program Requirements

Students interested in the field of social work should be aware that social workers must adhere to a strict code of ethics and values that are meant to protect the dignity and worth of clients and the profession. Social work students should be prepared to challenge their own attitudes, values and beliefs in order to be successful in the field.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathways Courses*

General Education Requirements (38 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical

thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

- Select one additional GT Pathways Natural and Physical Science course. The course must include a laboratory component (GT-SC1) *

Arts and Humanities (9 Credits)

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a

more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

- Select two additional GT Pathways courses from either Arts and Expression, Literature and Humanities, Ways of Thinking **or** Foreign Languages (GT-AH1, AH2, AH3, **or** AH4) *

Social and Behavioral Sciences (9 Credits)

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Electives (28 Credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

ETH 224 - Introduction to Chicano Studies

Credit(s): 3

Lecture Hour(s): 3

Introduces students to skills development in multicultural education. Covers Chicano history, migration and labor, education, law and Chicano culture.

HWE 111 - Health and Fitness

Credit(s): 3

Lecture Hour(s): 3

Studies health and fitness in the US today. The course will look at personal health issues, managing stress, nutrition and health lifestyles.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SWK 100 - Introduction to Social Work

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the philosophy of the social work profession including the knowledge, values, ethics, roles and skills inherent to generalist social work.

SWK 201 - Human Behavior in the Social Environment I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of PSY 101 and SOC 101 .

Prerequisite(s)/Corequisite(s): SWK 100.

Focuses on the person in environment throughout the lifespan with an examination of the relationship between biological, psychological, social, spiritual and cultural systems.

SWK 202 - Human Behavior in the Social Environment II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SWK 201

Focus in this course is on an understanding and analysis of larger social systems which include the family, groups, communities and organizations. Emphasis on social systems as an organizing theoretical framework for understanding social functioning and change.

SWK 205 - Social Welfare in the United States

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): SWk 100 (concurrency allowed)

Prerequisite(s)/Corequisite(s): SWK 100.

Introduces students to the profession of social work and social welfare. Students will be presented with an historical and conceptual overview of the social welfare system in the United States. Attention is given to the milieu within which social, political, economic, racial and cultural forces have interacted in the evolution of social welfare.

WST 200 - Introduction to Women's Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature and function of women in society from an interdisciplinary perspective, focusing on the similarity and diversity of women's experience over time and across cultures. The course will examine topics such as sex role, socialization, political and philosophical perspectives on women's issues, and women's accomplishments in history, art, literature, science, health issues and the family. Students will gain an awareness of the limitations of traditional scholarship on women and gain a means of practical application of the new scholarship on women's roles and nature. This course is one of the statewide Guaranteed Transfer Courses, GT-SS3.

Sociology, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Sociology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in sociology. Students who opt for a bachelor's degree in sociology may choose to work in the criminal justice system, business and industry, research and planning, agencies, government, education or advocacy. Once a BA is completed, students may pursue a higher or graduate degree in sociology if interested.

Program Description

The Associate of Arts Degree with Designation in Sociology includes the course work to meet general education requirements that are common to all Colorado four-year institutions. The degree is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in sociology. Completion of the AA degree completes the first two years of a bachelor's degree and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in sociology.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA Degree with Designation in Sociology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (35-36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT C03 course

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1), prefer MAT 135 - Introduction to Statistics: GT-MA1: except:

Adams State University

- Adams State University prefers MAT 121 - College Algebra: GT-MA1:

Colorado Mesa University

- Colorado Mesa University requires either MAT 120 - Mathematics for the Liberal Arts: GT-MA1 **or** MAT 121 - College Algebra: GT-MA1;

University of Colorado Denver

- University of Colorado Denver requires MAT 121 - College Algebra: GT-MA1 **or** MAT 123 - Finite Mathematics: GT-MA1 **or** MAT 135 - Introduction to Statistics: GT-MA1;

Western State Colorado University

- Western State Colorado University requires MAT 120 - Mathematics for the Liberal Arts: GT-MA1 **or** MAT 121 - College Algebra: GT-MA1

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses: GT-SC1 *

Arts and Humanities (9 Credits)

- Any three approved GT Pathways Arts & Humanities courses (GT-AH1, GT-AH2, GT-AH3, GT-AH4 *)

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral Sciences courses (GT-SS1, GT-SS2, GT-SS3 *)

History (3 Credits)

- Select one GT Pathways History course: GT-HI1 *

Additional Required Sociology Courses (18 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Choose three additional GT Pathways SOC courses (GT-SS3) **Credit(s): 9 ***

Electives (6-7 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Sociology; Criminology or Social Welfare emphasis)
- Colorado Mesa University (B.A. Sociology; Sociology concentration)
- Colorado State University-Fort Collins (B.A. Sociology; General Sociology concentration)
- Colorado State University-Pueblo (BA Sociology; B.S. Sociology)
- Fort Lewis College (B.A. Sociology; Human Services-General option)
- Metropolitan State University of Denver (B.A. Sociology)
- University of Colorado, Boulder (B.A. Sociology)
- University of Colorado, Colorado Springs (B.A. Sociology)
- University of Colorado, Denver (B.A. Sociology)
- University of Northern Colorado (B.A. Sociology; all emphasis)
- Western State Colorado University (B.A. Sociology)

Studio Art, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Art History prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) or Bachelor of Fine Arts (BFA) degree in Art or Studio Art. Students who opt for the Bachelor of Arts in Studio Art can choose to work in several occupational fields, including museums, galleries, commercial art, education, media, photography and academia. Once a BA or BFA is completed, students may pursue a higher or graduate degree in Art, if interested.

Program Description

This program introduces the student to the field of Studio Art and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Studio Art. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Studio Art will be ready to complete the last half of a BA or BFA in Studio Art at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT- MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. At least one of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

Note: Courses from the Arts and Expression category (GT-AH1) may not be used to meet this requirement

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Studio Art Courses (21 Credits)

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 121 - Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Investigates the various approaches and media that students need to develop drawing skills and visual perception.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 221 - Drawing II

Credit(s): 3

Art Studio Hour(s): 6

Explores expressive drawing techniques with an emphasis on formal composition, color media and content or thematic development.

or

ART 128 - Figure Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the basic techniques of drawing the human figure.

- Select one additional 3-credit Studio Art course **Credit(s): 3**

Electives (8 Credits)

Determined by transferring institution;

Note: Students planning to transfer to Colorado State University-Fort Collins will be required to complete two semesters of one foreign language for their electives, or be able to pass the CSU-FC foreign language placement exam for completion of the BA in Studio Art.

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.A. Liberal Arts, Studio Art emphasis)
- Colorado Mesa University (B.F.A. Art, Studio Art concentration)
- Colorado State University-Ft. Collins (B.A. Art, Studio concentration)
- Colorado State University-Pueblo (B.A. Art)
- Fort Lewis College (B.A. Art, Art option)
- Metropolitan State University of Denver (B.A. Art)
- University of Colorado, Boulder (B.A. Studio Arts)
- University of Colorado, Colorado Springs (B.A. Visual and Performing Arts, Visual Art option)
- University of Colorado, Denver (B.A. Fine Arts, Studio Art emphasis)
- University of Northern Colorado (B.A. Art and Design, Art emphasis)
- Western State Colorado University (B.A. Art, Studio Art emphasis)

Associate of Applied Science

[Click here for the Associate of Applied Science Degree Requirements](#)

Accounting, AAS

CIP 52.0302

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Accounting prepares you for a career in entry-level accounting or upper-level bookkeeping positions.

Program Description

This program offers you a comprehensive understanding of the theory and practice of modern accounting. It places particular emphasis on logical reasoning, enabling you to solve accounting problems and to make sound accounting policy decisions. It also teaches you to use computer software related to the accounting profession. You will learn to use state-of-the-art equipment through industry-standard instructional materials. The required occupational experience provides you the opportunity to obtain valuable on-the-job training. If you are pursuing bachelor's degree or a career as a Certified Public Accountant (CPA), check with your advisor concerning the transfer of courses to four-year colleges.

For bachelor's degree in accounting students: Students interested in a bachelor's degree in Accounting, the Pueblo Community College Pathway of Study is the AA degree in Business.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

Core Curriculum Requirements (28 credits)

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

ACC 131 - Income Tax

Credit(s): 3

Lecture Hour(s): 3

This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting periods and methods, and property transactions, with emphasis on taxation of individuals and sole proprietorships.

ACC 211 - Intermediate Accounting I

Credit(s): 4

Lecture Hour(s): 4

Focuses on comprehensive analysis of generally accepted accounting principles (GAAP), accounting theory, concepts and financial reporting principles for public corporations. It is the first of a two-course sequence in financial accounting and is designed primarily for accounting and finance majors. Focuses on the preparation and analysis of business information relevant and useful to external users of financial reports. Explores the theories, principles and practices surveyed in Accounting Principles and critically examines real-world financial analysis and reporting issues.

ACC 212 - Intermediate Accounting II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 211

Focuses on the theoretical and practical aspects of accounting for long-term liabilities, stockholders' equity, investments, pensions and leases. Includes income tax allocation, financial statement analysis, cash flow statements and accounting methods changes.

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

Related Requirements (15 credits)

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

Elective (3 credits)

(Choose one course from below)

ACC 287 - Cooperative Education

Credit(s): 3

Internship Hour(s): 9

Provides an opportunity to gain practical experience in applying occupational skills and/or to develop specific skills in

a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives, and coordinate learning activities with the employer or work site supervisor. For Accounting majors only.

MAN 216 - Small Business Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107

Examines the elements necessary for the successful formation of a new small business. It is also designed to enhance the skills of those already involved in the operation of a small business. The course includes the development of a complete small business plan.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

Advanced Emergency Medical Technology AAS

Program Description

See list of Department Chairs on the Personnel page.

This program prepares students with the knowledge and skills needed for employment in a health care facility or in prehospital patient care. It will also prepare students to continue their education in more advanced careers in EMS, nursing and other health care fields. Upon successful completion of the CNA, EMT, and AEMT portions of the program, students will be eligible to take the certifying exams, and with successful Completion of the exam, may apply for state certification at that level of training.

All Health & Public Safety programs have essential functions you must be able to perform for you to be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

Career opportunities include ambulance service, skilled nursing facilities, critical care transport, and emergency department technician. If you graduate with an AAS degree, you have additional career opportunities in administrative and management in the pre-hospital field.

Total Program Credits -- 64

All courses must be completed with a grade of "C" or higher.

Total Credits: 64

First (13 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

HPR 102 - CPR for Professionals: Professional Rescuer

Credit(s): 0.50

Lecture Hour(s): 0.50

Meets the requirement for American Red Cross Professional Rescuer CPR or American Heart Association Basic Life Support for those who work in emergency services, healthcare and other professional areas. Material presented in the course is basic patient assessment, basic airway management, rescue breathing, and CPR for infant, children and adult patients.

Third (12 credits)

EMS 121 - EMT Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management and patient assessment.

EMS 122 - EMT Medical Emergencies

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121. EMS 170.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history and pathophysiology when assessing and treating the medical patient.

EMS 123 - EMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.

EMS 124 - EMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials and terrorism.

EMS 170 - EMT Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

Second (14 credits)

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

EMS 115 - Emergency Medical Responder

Credit(s): 3

Lecture Hour(s): 3

Provides the student with core knowledge and skills to function in the capacity of a first responder arriving at the scene of an emergency, providing supportive care until advanced EMS help arrives.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Fourth (12 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

HPR 190 - Basic EKG Interpretation

Credit(s): 2

Lecture Hour(s): 2

Provides instruction for interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Twelve-lead EKG may be discussed.

EMS 180 - EMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Provides the Emergency Medical Technician (EMT) with a supervised clinical learning experience that goes beyond the initial EMT requirements for the State of Colorado Department of Health. Enables the student to work with an assigned preceptor for 90 hours of clinical experience to develop an understanding of the role and responsibilities of the EMT-Basic.

Fifth (13 credits)

EMS 127 - AEMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to the fundamental knowledge of growth, development and aging considerations in the emergency patient. The student will learn to use assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. These include the obstetric patient, neonatal patient, pediatric patient, geriatric patient and patients with special challenges. Learners will apply this knowledge to patient assessment and the development of a treatment plan in a simulated setting. This course also provides an overview of the principles of safe ground ambulance operations, incident management,

multiple casualty incidents, air medical responses, vehicle extrication, hazardous material awareness and terrorism and disaster response. Learners will apply critical thinking skills to ensuring the safety of a scene and a plan for safe patient care and transportation.

EMS 129 - AEMT Pharmacology

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with a basis for making clinical decisions in the pharmacologic management of patients commonly encountered in the pre-hospital setting. Topics include the legal and ethical aspects of pharmacotherapy, roles, responsibilities and techniques associated with medication preparation and administration, the classification and naming of medications, pharmacokinetics, pharmacodynamics, and medication calculations. In addition the mechanism of action, dose, route(s) of administration, therapeutic effects, adverse effects, and therapeutic indications for medications within the Advanced Emergency Medical Technician scope of practice are discussed in detail.

EMS 132 - EMS Intravenous / Intraosseous Therapy

Credit(s): 2

Lecture Hour(s): .25

Vocational Lab Hour(s): 1.9

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current Colorado Certification as EMT or Department Chair Approval

Focuses on cognitive and skill practice for the Colorado scope of practice for the IV / IO endorsement as outlined in the Intravenous / Intraosseous Therapy and Medication Administration course curriculum.

EMS 131 - AEMT Fundamentals

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with instruction in EMS systems, communications and documentation, pathophysiology, airway management, and the role of EMS in public health.

EMS 133 - AEMT Medical Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the medical patient. This course provides instruction in the integration of physical exam findings, history findings and pathophysiology when assessing and treating the medical patient. Topics addressed include neurology, immunology, infectious diseases, endocrine disorders, cardiovascular disorders, toxicology, respiratory emergencies, hematology and renal disorders.

EMS 135 - AEMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the trauma patient. The student will learn how to utilize assessment findings to provide basic and selected advanced emergency care and transportation for the trauma patient.

EMS 171 - AEMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Acceptance into the AEMT Program.

Builds on the Advanced Emergency Medical Technician (AEMT) student's fundamental knowledge of patient care in the clinical and field setting. The student will perform patient assessments through physical examination, and patient interviews of health history and current illness. The student will then use those assessment findings to develop and carry out a patient treatment plan. This will include pediatric, geriatric and adult patients with a variety of presentations. The student will also survey each field scene for safety considerations and scene management.

Notes

¹ Successful completion of courses, student is eligible to sit for Nurse Aide Certification exam

² Successful completion of courses, student is eligible to sit for the EMT certification exam

³ Successful completion of courses, student is eligible to sit for the Advanced EMT certification exam

Applied Technology, AAS

CIP 41.9999

See list of Department Chairs on the Personnel page.

Program Description

PCC offers the AAS degree in Applied Technology as part of a statewide consortium of community colleges and Area Vocational Technical Schools (AVTS) consortium and other Colorado public community colleges.

To attain the degree, you must complete the technical course work for a state-approved Career and Technical Education Certificate at one of the following AVTS's: Delta Montrose Area Vocational Technical Center, Emily Griffith Opportunity School, San Juan Basin Area Vocational Technical School and T.H. Pickens Technical Center.

You will complete the general education and other degree requirements at PCC. Course work from the AVTS will be credited to your transcript when you complete the requirements of both institutions.

Program Requirements

You must comply with the regulations and requirements related to admissions and attendance at each institution.

Minimum Requirements for This Degree Include:

- a. Minimum of 60 credit hours of course work.
- b. Cumulative GPA of 2.0 or higher.
- c. General Education course of 15-18 semester hours
- d. Additional requirements of at least 42 semester hours:
 - * From an individual program with current state approval a one of four AVTS's
 - * If the program certificate is less than 42 semester hours, then the program certificate hours plus elective credit hours from Pueblo Community College will be used for the total of at least 42 semester hours
- e. Minimum of 15 semester credits earned at Pueblo Community College.

Total Credits: 60

Degree Requirements

AVTS Certificate (42-45 Credits)

General Education Courses (15-18 Credits)

The below general education courses must be selected from the general education courses listed in the AGS, AA or AS general education sections of this catalog.

- English/Speech **Credit(s): 3**
- Humanities **Credit(s): 3**
- Mathematics **Credit(s): 3**
- Natural Science **Credit(s): 3**
- Social Science **Credit(s): 3**

Associate Degree Nursing

Entrance Requirements:

See list of Department Chairs on the Personnel page.

This is a limited-entry admission program. You must meet specific program entrance requirements in addition to the PCC admission requirements. Students must complete general education requirements with a "C" or higher (minimum GPA 2.5) to be admitted to the Nursing program. Admission requirements – TEAS and CAN. Students who complete the departmental application process will have their qualifications reviewed by the program's admission committee. The committee will consider the following criteria in the selection process: prerequisite GPA, completion of all general education courses, and health related work experience. Applicants not accepted for a given year who wish to be considered for a subsequent term must reapply.

Total Credits: 71.5

General Education (26 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control,

digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

¹ Indicates required prerequisite course

² Must be completed within 7 years of entrance into the Program. As of Fall 2020, must be completed within 10 years of entrance into the program

Core Requirements - 1st Year

Semester 1 - Fall (11 credits)

NUR 109 - Fundamentals of Nursing

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 112, HPR 108, MAT 103. Psych Tech: NUR 112.

Introduces the fundamental concepts necessary for safe, patient-centered nursing care to a diverse patient population while integrating legal and ethical responsibilities of the nurse. Introduces caring, critical thinking, the nursing process, quality improvement and communication used when interacting with patients and members of the interdisciplinary team, and relates evidence-based nursing practice. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings providing care to stable patients with common health alterations.

NUR 112 - Basic Concepts of Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 109, HPR 108, MAT 103; Psych Tech: NUR 109.

Overview of the basic principles of pharmacology including major drug classifications and prototypes of commonly used medications. Principles of medication administration include aspects of best practice for safe, quality, patient-centered care. Central points include safety, quality improvement factors in the administration of medications, patient teaching and variations encountered when administering medications to diverse patient populations across the lifespan.

NUR 175 -- Special Topics -- Introduction to Nursing **Credit(s): 3**

Semester 2 - Spring (13 credits)

NUR 106 - Med-Surg Nursing Concepts

Credit(s): 7

Lecture Hour(s): 3.40

Vocational Lab Hour(s): 0.90

Voc/Tech Clinic Hour(s): 9.90

Prerequisite(s): Admission to Nursing Program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 150 or permission of the program director.

NUR106 is the first medical/surgical nursing course. Building on NUR 109, this course provides for the acquisition of basic medical/surgical nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered care to a developmentally and culturally diverse adult patient population experiencing various medical/surgical interventions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the nurse.

Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings.

NUR 150 - Maternal-Child Nursing

Credit(s): 6

Lecture Hour(s): 3.30

Vocational Lab Hour(s): 2.10

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 106 or permission of the program director.

Nursing 150 provides for the acquisition of maternal/child nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, family-centered nursing care to childbearing families and children that is developmentally and culturally appropriate.

Incorporates evidence-based practice, standards of practice, quality improvement, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of maternal/child and pediatric clinical settings.

Core Requirements - 2nd Year

Semester 3 - Fall (12.5 credits)

NUR 206 - Advanced Concepts of Medical-Surgical Nursing I

Credit(s): 6.50

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of the program director.

NUR 206 builds on NUR 106 focusing on advanced concepts of nursing applied to care of patients with high acuity medical/surgical conditions. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in a variety of

healthcare settings. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of clinical settings.

NUR 211 - Psychiatric-Mental Health Nursing

Credit(s): 4

Lecture Hour(s): 2.70

Voc/Tech Clinic Hour(s): 3.90

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of program director.

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 psychiatric clinical conditions/disorders.

NUR 212 - Pharmacology II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing program and successful completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 211 or permission of the program director.

Builds on previously introduced pharmacological concepts and applies that learning to pharmacologic therapy to provide safe, quality, evidence-based nursing care to patients with complex healthcare needs. Focuses on safety and quality improvement factors in the administration of medications within a variety of healthcare systems. Advanced dosage calculations included.

Semester 4 - Spring (9 credits)

NUR 216 - Advanced Concepts of Medical Surgical Nursing II

Credit(s): 5

Lecture Hour(s): 2.30

Voc/Tech Clinic Hour(s): 8.10

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 206 and NUR 212 or permission of the program director.

Nursing 216 is a continuation of Nursing 206, focusing on complex medical/surgical conditions of the high acuity patient. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients experiencing high acuity medical/surgical conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of knowledge and skills occurs in a variety of clinical settings.

NUR 230 - Transition to Professional Nursing Practice

Credit(s): 4

Lecture Hour(s): 1.60

Voc/Tech Clinic Hour(s): 7.20

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 216 or permission of the program director.

Nursing 230 is a Seminar and practice Capstone course that provides an integrative experience applying all dimensions of the professional nurse in the care of diverse patient populations across a variety of healthcare settings. All major concepts of the nursing program are addressed. Leadership and the management of multiple patients are emphasized. Application of knowledge and skills occurs in the clinical setting to facilitate an effective transition from student to registered professional nurse.

Behavioral Health AAS

Behavioral Health

See list of Department Chairs on the Personnel page.

Program Description

The Behavioral Health (BHP) program is a degree option for those who are interested in human behavior especially in a clinical or health related settings. During the program, students will study behavioral health concepts related to addiction and substance abuse, counseling, group dynamics and human development. The Behavior health program will also cover current trends, best practices and up-to-date research findings. If you wish to pursue a bachelor's degree after earning your AGS you can take advantage of a smooth transfer to University of Colorado, Colorado Springs (UCCS) BA in Human Services.

Graduates from the behavioral health program can look forward to a rapidly growing job market that has several options.

Career Information

A behavior health specialist is a professional who works with people who have disabilities or problems with behavior and learning impairment in a variety of settings ranging from residential to outpatient, including but not limited to department of corrections, youth residential facilities, hospitals and outpatient facilities.

- Behavioral health technician
- Case manager
- Peer support worker
- Community health worker
- Family support worker
- Respite car worker
- Paraprofessional counselor
- Social service liaison

First Spring (16 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

First Summer (7 credits)

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical

laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

Fall (17 credits)

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PTE 110 - Intro to Behavioral Health Care and Wellness

Credit(s): 3

Lecture Hour(s): 3

Explores basic principles of behavioral health and wellness care in behavioral health settings. This course develops interpersonal and technical skills while working with clients in psychiatric care settings.

CSL 245 - Professional Ethics I

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This course focuses on ethical issues specific to the practice of addiction counseling and on jurisprudence, which is the law and the practice of psychotherapy in Colorado. The class will cover the Colorado Mental Health Practice Act and introduce the student to the regulatory system and the role of DORA (Dept. of Regulatory Agencies) and DBH (Division of Behavioral Health) in the development and credentialing of the addiction counselor. There will be emphasis on developing ethical decision making skills, knowledge of confidentiality and the prohibited activities in the Mental Health Practice Act. Students will become familiar with the NAADAC Code of Ethics and acquire the tools for ethical and legal practice.

CSL 251 - Pharmacology I for Addiction Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide a solid base of knowledge about the drugs of abuse, including what is happening in human physiology and behaviors, and will enhance the ability of the counselor to offer treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

CSL 255 - Infectious Diseases for Addiction Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will help prepare addiction professionals to identify diseases frequently associated with drug abuse, determine client risk for infection, educate clients about disease prevention and treatment options, and assist clients in obtaining appropriate treatment as needed. This class will enhance the ability of the counselor to offer treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

CSL 260 - Client Records Management

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide the counselor with an understanding of the clinical record and the continuum of client care that the record documents and tracks. The class presents screening, assessment and evaluation, diagnosis, ASAM patient placement criteria, treatment planning, progress note completion, documentation requirements and discharge planning. It emphasizes the confidentiality of the client record and includes releases of information, mandatory disclosure and informed consent among others.

CSL 265 - Culturally Informed Treatment

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide a basic foundation for understanding how cultural competence, awareness and sensitivity can improve quality of care and increase positive outcomes. Cultural variables to be considered will include age, gender, sexual orientation, religious affiliation, language, educational level, physical ability, economic status and social class as well as racial and ethnic backgrounds. This course is intended to provide participants with basic skills to recognize and respect the behavior, ideas, attitudes, values, beliefs, customs, language, rituals, ceremonies and practices characteristic of diverse groups of people. Course design will include definitions and descriptions of culture including concepts of assimilation and acculturation. Exercises will involve self-examination and discussion of the evolution of one's own personal beliefs, values and attitudes.

CSL 268 - Addictions Counseling Skills

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): High School diploma or equivalent.

This class will provide a framework and counseling model for working with clients with substance abuse or dependence. This course will teach the counseling skills needed to help clients process their information and move toward the change process. The models utilized in this class are client-centered, counselor-directed therapy using a motivational style and spirit.

CSL 269 - Principles of Addiction

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): High School diploma or equivalent.

Focuses on the major theories of addiction in an historical and theoretical context. Includes an elaboration on NIDA's Principles of Drug Addiction Treatment. This class meets the principles of addictions training requirement for the Counselor I level of the Colorado Alcohol and Drug Abuse Program.

Second Spring (15.5 credits)

HPR 106 - Law & Ethics for Health Professions

Credit(s): 2

Lecture Hour(s): 2

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

CSL 248 - Clinical Assessment & Treatment Planning

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): CSL 260

Covers the differences between screening and assessment and use of assessment instruments. In this course components of the clinical assessment include a biopsychosocial interview, assessing risk for self-harm, identifying cultural needs and supports, problem domains, determining stage of readiness for change and strengths of the client. Stages of treatment and systems of care will be covered along with facets of treatment planning.

CSL 250 - Motivational Interviewing I

Credit(s): 1.5

Lecture Hour(s): 1.5

Prerequisite(s): CSL 268

Provides the opportunity for students to learn both the model of Motivational Interviewing as well as the underlying Stages of Development model. Discussion of the populations of clients where these models have proven most effective will be discussed. Student opportunity for skills practice during class that includes skill sets specific to each stage of client readiness will be used. Presentation of assessment instruments to evaluate client readiness for change.

CSL 252 - Pharmacology II for Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): CSL 251

Focuses on the pharmacology of alcohol and drugs such as stimulants, nicotine, cannabis, hallucinogens, designer drugs, over the counter medications, and medications for psychiatric illnesses. When combined with CSL 251, this course meets the pharmacology training requirement for the Counselor II level of the Colorado Alcohol and Drug Abuse Program.

CSL 253 - Cognitive Behavior Therapy

Credit(s): 1

Lecture Hour(s): 1

Opportunity for students to learn the model of Cognitive Behavior Therapy as it applies to addiction. Discussion of the populations of clients where this model has proven most effective. Opportunity for skills practice during class that includes clinical feedback. Minimum of 14 contact hours.

CSL 254 - Trauma Informed Care

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Covers the concept of trauma-informed care, an approach being adopted within human services based upon an increased awareness of the ways trauma impacts functioning. Course will define what trauma informed care is and ways a traditional treatment setting can be modified to increase the sense of safety experienced by clients. Participants will learn how to incorporate trauma-informed practices into treatment with diverse populations, such as military veterans, women, and people with co-occurring disorders.

CSL 256 - Co-occurring Disorders

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Presents the basics of working with clients with co-occurring mental health and substance abuse disorders. This class will address clinical assessment, treatment philosophy, strategies, and guidelines to provide integrated treatment with co-occurring disorders. It will include an introduction to the diagnostic criteria for the mental disorders most often seen with substance use disorders. The essential values, attitudes, and competencies of the counselor working with this population are discussed.

Second Summer (9.5 credits)

PTE 117 - Theoretical Concepts of Psychiatric Care II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): PTE 110

Explores psychiatric problems common to four (4) special populations: children/adolescents, developmentally disabled individuals, aging persons and forensic clients. The student will learn how to recognize and intervene with problems common to these four groups.

PTE 120 - Application of Behavioral Health Care & Wellness

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): PTE 110

Explores basic etiology, symptoms, and interventions for common behavioral and mental health disorders. Provides the opportunity for students to experience the milieu of a behavioral health care setting while providing basic care to clients experiencing common behavioral and mental health issues.

CSL 257 - Certified Addiction Counselor

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Provides participants with an overview of ethical and risk management issues related to addiction treatment services with an emphasis on professional conduct, professional boundaries, boundary crossings, boundary violations, dual relationships and an appropriate use of counselor self-disclosure. Class will focus on issues of professional distance, modeling and maintaining healthy therapeutic boundaries. The ethics of delivering professional counseling to persons of culturally diverse backgrounds will be discussed along with issues of professional readiness and professional development.

CSL 258 - Group Counseling Skills

Credit(s): 1.5

Lecture Hour(s): 1.5

Prerequisite(s): CSL 268

Provides students with the skills that allow one therapist to facilitate a group process that help a number of clients simultaneously, and provides positive peer support and pressure for recovery. This class will help the student understand the use of group therapy and be able to demonstrate the skills necessary to facilitate a therapy group. The class will focus on group process and discuss diversity within groups, as well as challenges for group leaders.

Notes

¹ Indicates guarantee transfer courses (GT)

² Indicates program core courses

³ Requires department approval

Business Management, AAS

Program Description

See list of Department Chairs on the Personnel page.

The Associate of Applied Science (AAS) Degree in Business Management teaches the theory and principles of management with practical, real world applications. These skill sets are relevant to those seeking management positions in the corporate environment or those wishing to develop their own small businesses. In addition to the classroom setting, learning opportunities will be made available with guest speakers, events, and community engagement.

Total Credits: 62

Degree Requirements

Communications (3 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Mathematics (3 credits)

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

Social and Behavioral Sciences (6 credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

General Education (3 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

OR

Any communications course(s) **Credit(s): 3**

Core Curriculum Requirements (29 credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

PSV 230 - Introduction to Civic Leadership

Credit(s): 3

Lecture Hour(s): 3

Enables the student to develop a critical understanding of public leadership through the study of pertinent models, theories and research.

MAN 224 - Leadership

Credit(s): 3

Lecture Hour(s): 3

Focuses on the leadership skills for contemporary organizations. Covers development and communication a shared vision to motivate and empower employees to manage conflict, to negotiate, and to develop teams.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

Elective Options (18 credits)

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws

impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

ENP 206 - Entrepreneurship Legal Issues

Credit(s): 3

Lecture Hour(s): 3

Explores legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships, and corporations. This course reviews articles of incorporation and the filing process, employment law, property, landlord tenant rights and duties, and business insurance.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

ENP 205 - Marketing for the Entrepreneur

Credit(s): 3

Lecture Hour(s): 3

Covers marketing strategies to launch and sustain an entrepreneurial venture. This course will include topics on marketing entrepreneurial ventures utilizing innovative and financially responsible marketing strategies. This course will help students to develop an understanding of entrepreneurial marketing goals and objectives. The course covers marketing principles and electronic marketing.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning,

decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

ENP 207 - Entrepreneurship Financial Topics

Credit(s): 3

Lecture Hour(s): 3

Will cover topics such as financial planning for entrepreneurs, understanding tax considerations, understanding financial documents, financial ratio analysis, cash flow management, cost of capital and budgeting, raising capital, valuation, risk assessment, and venture exits.

Business Ownership AAS

See list of Department Chairs on the Personnel page.

Program Description

The Business Management program (AAS Degree and Certificates) prepares students for entry level positions in Marketing, Management, Sales, and Entrepreneurship. These offerings also provide opportunities for individuals working within the industry to up-skill and advance their careers. The (AA) in Business Management prepares students to transfer to bachelor's degree programs in Business Management. Per the statewide articulation agreement, students can complete fundamental courses at PCC and transfer to complete a Bachelor's Degree with a specific emphasis.

Total Credits: 61

General Education Requirements (15 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

- Any communications Course(s): **Credit(s): 3**

Core Curriculum Requirements (31 credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

ENP 106 - Entrepreneurship Opportunity Analysis/Feasibility Study

Credit(s): 3

Lecture Hour(s): 3

Determines if a business venture is feasible based on personal, professional, and financial goals. This course will help to identify and analyze the present climate for business ideas through an industry analysis, target market analysis, competitive analysis, and financial analysis.

ENP 205 - Marketing for the Entrepreneur

Credit(s): 3

Lecture Hour(s): 3

Covers marketing strategies to launch and sustain an entrepreneurial venture. This course will include topics on marketing entrepreneurial ventures utilizing innovative and financially responsible marketing strategies. This course will help students to develop an understanding of entrepreneurial marketing goals and objectives. The course covers marketing principles and electronic marketing.

ENP 206 - Entrepreneurship Legal Issues

Credit(s): 3

Lecture Hour(s): 3

Explores legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships, and corporations. This course reviews articles of incorporation and the filing process, employment law, property, landlord tenant rights and duties, and business insurance.

ENP 207 - Entrepreneurship Financial Topics

Credit(s): 3

Lecture Hour(s): 3

Will cover topics such as financial planning for entrepreneurs, understanding tax considerations, understanding financial documents, financial ratio analysis, cash flow management, cost of capital and budgeting, raising capital, valuation, risk assessment, and venture exits.

ENP 209 - Entrepreneurship Business Plan

Credit(s): 3

Lecture Hour(s): 3

Guides students through the evaluation of a business concept. This course will include writing a comprehensive business plan. This course explores both traditional and lean business planning as a means to establish strategic vision and direction for a business. This course assesses the strengths and weaknesses of a business concept. This course will include identifying external and environmental factors related to business ownership and evaluating various resources available for funding small businesses.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

CTE Focused Elective Options (15 credits)

Students will choose courses within a specific discipline to gain content knowledge of a specific industry, e.g., Business, Culinary Arts, Automotive, Welding, Cosmetology, etc. **Credit(s): 15**

Cosmetology, AAS

CIP 12.0401

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field. Students can choose from the following:

- Cosmetology degree or certificate – This program provides training in hair, skin and nail care services. Instruction is provided in hair cutting, hair styling, hair coloring, chemical texture services, skin care, waxing services, make-up application and nail care needs.
- Hairstylist certificate – This certificate program provides training in hair care. Instruction is provided in hair cutting, hair styling, hair coloring and chemical textures services.
- Manicurist certificate – This certificate program provides training in nail care. Instruction is provided in manicuring, pedicure, nail design extensions and nail artistry.
- Esthetician certificate – This certificate program provides training in facial care.

Program Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Total Credits: 68

Degree Requirements

General Education Requirements (15 Credits)

English (3 Credits)

Recommended:

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Math (3 Credits)

Recommended:

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors.

Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Art and Humanities (9 Credits)

Recommended:

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 122 - Drawing for the Graphic Novel

Credit(s): 3

Art Studio Hour(s): 6

Introduces the drawing and fine art principles used in developing illustrations for the graphic novel. Students explore the graphic novel as a vehicle for a unique, personal venue for artistic expression. Students explore the history of the graphic novel as well as examine different artistic styles used in the development of graphic novel illustrations. The application of artistic concepts in the creation of an individual graphic work and thorough examination of course material in terms of style, design considerations and visual elements are the primary focus. Students will create images for a graphic novel, focusing on unity of style and techniques for creating images appropriate to story line using black and white or grayscale illustrations.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 133 - Jewelry and Metalwork I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the construction of jewelry designs in metals and small casting techniques.

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

or

ART 161 - Ceramics I

Credit(s): 3

Art Studio Hour(s): 6

Introduces traditional and contemporary ceramic forms and processes including hand building and throwing on the potter's wheel.

Core Requirements (53 Credits)

COS 103 - Shampoo/Rinses/Conditioners I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 - Introduction to Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 - Intermediate: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 - Introduction to Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair-cutting implements. Focuses on basic hair-cutting techniques using all cutting implements, disinfection and sanitation procedures as they relate to haircutting.

COS 121 - Intermediate I: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Focuses on theory related to facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 - Introduction to Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Combines theory with the practical application of roller placement, shaping, pin curls, finger waves, air forming iron curling, soft pressing and hard pressing.

COS 131 - Intermediate I: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 - Introduction to Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

COS 141 - Intermediate I: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 203 - Shampoo/Rinses/Conditioners II

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 103.

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 - Intermediate II: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

COS 211 - Advanced Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 111.

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 - Intermediate II: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 - Advanced Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 121.

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 - Intermediate II: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 - Advanced Hair Styling

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 131.

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 - Intermediate II: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

COS 241 - Advanced Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 141.

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful

business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

EST 110 - Introduction to Facials and Skin Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic understanding of massage manipulations when providing facials, the study of skin in both theory and practical applications, and benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

EST 111 - Intermediate Facials & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 110.

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 210 - Advanced Massage & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 111.

Provides the student with advanced techniques in massage, skin care and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 - Facial Make-up

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): EST 110.

Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 - Hair Removal

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): EST 110.

Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

NAT 108 - Introduction of Manicuring/Pedicures/Artificial Nails

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 158 - Intermediate Manicuring/Pedicures/Artificial Nails

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 159 - Intermediate Manicuring/Pedicures/Artificial Nails II

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 208 - Advanced Manicuring/Pedicures/Artificial Nails

Credit(s): 4

Voc/Tech Clinic Hour(s): 8

Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.

Culinary Arts Management, AAS

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Culinary Arts Management Requirements (46 Credits)

CIS 109 - Management Software and Technical Applications

Credit(s): 1

Vocational Lab Hour(s): 1.50

Introduces the use of computer management software and the concepts of software applicable to various technology programs. Covers features of selected software, terminology related to hardware, software and online resources (which include PC, word processing, databases, spreadsheets and e-mail). Provides opportunities for practical application of computer skills.

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 125 - Introduction to Foods

Credit(s): 4

Vocational Lab Hour(s): 6

Corequisite(s): CUA 101

Provides students with the fundamental principles and practices of a commercial kitchen, including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. Focuses on the fundamental principles and production of stocks, soups, sauces, gravies and thickening agents. Principles of cold food and nonalcoholic beverage preparation and production in a commercial kitchen. Basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Emphasizes the effects of seasonings and cooking methods of vegetable products and basic hot food preparation. Students prepare breakfast orders similar to those ordered in restaurants, with egg cookery and dairy products emphasized.

CUA 129 - Center of the Plate

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 125

Enables the student to plan and prepare a variety of complete meals in a commercial kitchen, focusing on center of the plate entrees including meat, poultry, seafood and vegetarian items. Meat, poultry and seafood handling and preparation, including basic forms and cuts, principles used for selecting products and appropriate cooking methods are emphasized. Vegetarian entrees are also covered, including methods for preparation and cooking of various types of potatoes, rice, legumes, pastas, casseroles and grain products, with special attention given to complimentary proteins.

CUA 136 - Alcohol and Bartending Management

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 125

Prepares students for the preparation and service of alcoholic beverages. Focuses on mixology procedures, wine and champagne service, purchasing and storage procedures, cost controls, customer relations, legal responsibilities of lounge operations and ServSafe alcohol practices.

CUA 154 - Introduction to the Business of Catering

Credit(s): 3

Lecture Hour(s): 3

Provides students with an overview of the catering industry. Special attention will be given to catering from a customer's perspective. Students completing this course should be able to plan and implement a variety of catering functions. Included in the course will be some experiential learning opportunities as a result of participation in actual college catered functions on campus.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

CUA 233 - Advanced Line Prep and Cookery

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101 CUA 129

Focuses on preparation of complete meals to order. Emphasizes cooking center of the plate items such as meat, fish, seafood and poultry, as well as accompaniment foods such as starches and vegetables. Enables the student to prepare sauces, entrée salads, edible garnishes and meals determined by the menu prepared for a dining room setting. Emphasizes line supervisor, sauté cook, pantry cook, cook's helper and runner responsibilities.

CUA 255 - Supervision in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the current/future foodservice operator, manager, or supervisor with a solid foundation for developing communication skills, planning and decision-making skills, and skills for creating a goal-oriented environment utilizing management principles in the selection, training, evaluating, delegating, motivating, rewarding and disciplining employees. Stresses skills for success through people development.

CUA 261 - Cost Controls

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107, CIS 109, CIS 118, or Department Chair Approval

Corequisite(s): MAT 107.

Provides students with the opportunity to learn the types of costs usually found in the food service industry. Students will learn to apply control techniques to a variety of costs and sales. They will also learn to interpret a variety of financial reports which reflect the relationship between costs and income. Students may take the national Cost Controls test from the National Restaurant Association Education Foundation. If they pass the test with 75% or higher, they will receive a national certificate for the course.

CUA 262 - Purchasing for the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Emphasizes controlling costs as applied to the selection and procurement of food and supply items. Covers selection and procurement of food and supplies, supplier selection and distribution systems, including the forces affecting them. Students will take a nationally recognized test and may receive a certificate from the Education Foundation, the educational arm of the National Restaurant Association.

CUA 281 - Internship

Credit(s): 2-6

Internship Hour(s): 6-18

Prerequisite(s): MAT 107, CUA 157, CUA 190, CUA 233, CUA 261 or, HOS 123, HOS 207, and CIS 118; or Department Chair Approval.

Places students in an actual work situation where they participate in the operation of a foodservice establishment. Hours of work are arranged by the site supervisor and the intern. The number of hours required are determined by the number of credits the course carries.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

Culinary Arts Production, AAS

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 62

Degree Requirements

General Education Requirements (15 Credits)

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Culinary Arts Production Requirements (47 Credits)

CIS 109 - Management Software and Technical Applications

Credit(s): 1

Vocational Lab Hour(s): 1.50

Introduces the use of computer management software and the concepts of software applicable to various technology programs. Covers features of selected software, terminology related to hardware, software and online resources (which include PC, word processing, databases, spreadsheets and e-mail). Provides opportunities for practical application of computer skills.

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 125 - Introduction to Foods

Credit(s): 4

Vocational Lab Hour(s): 6

Corequisite(s): CUA 101

Provides students with the fundamental principles and practices of a commercial kitchen, including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. Focuses on the fundamental principles and production of stocks, soups, sauces, gravies and thickening agents. Principles of cold food and nonalcoholic beverage preparation and production in a commercial kitchen. Basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Emphasizes the effects of seasonings and cooking methods of vegetable products and basic hot food preparation. Students prepare breakfast orders similar to those ordered in restaurants, with egg cookery and dairy products emphasized.

CUA 129 - Center of the Plate

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 125

Enables the student to plan and prepare a variety of complete meals in a commercial kitchen, focusing on center of the plate entrees including meat, poultry, seafood and vegetarian items. Meat, poultry and seafood handling and preparation, including basic forms and cuts, principles used for selecting products and appropriate cooking methods are

emphasized. Vegetarian entrees are also covered, including methods for preparation and cooking of various types of potatoes, rice, legumes, pastas, casseroles and grain products, with special attention given to complimentary proteins.

CUA 145 - Introduction to Baking

Credit(s): 4

Vocational Lab Hour(s): 6

Provides the student with the fundamentals of baking terminology, principles of baking, and the characteristics of the functions of the main ingredients that is used in bakery production. Orients student to use commercial equipment and tools and provides the student with the fundamentals of basic yeast-raised production and quick breads, white bread, rolls, variety grain breads, specialty breads, sweet yeast-raised products and quick bread, fundamentals of basic cake, pie, pastry and cookie production. Enables the student to produce a variety of cakes, pies, pastries, cookies and assorted dessert items in a commercial kitchen.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

CUA 210 - Advanced Cuisine and Garde Manger

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101, CUA 129

Focuses on the preparation of food display items for buffets and banquets such as fancy garnishes, fruit and vegetable carvings, canapés, party trays, etc. Includes pates, galantines, terrines, and choud froid items. Incorporates creation of food artistry show pieces meeting competition guidelines developed by the American Culinary Federation. Covers the preparation of a regional, ethnic or cultural culinary presentation based upon personal research.

CUA 233 - Advanced Line Prep and Cookery

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101 CUA 129

Focuses on preparation of complete meals to order. Emphasizes cooking center of the plate items such as meat, fish, seafood and poultry, as well as accompaniment foods such as starches and vegetables. Enables the student to prepare

sauces, entrée salads, edible garnishes and meals determined by the menu prepared for a dining room setting. Emphasizes line supervisor, sauté cook, pantry cook, cook's helper and runner responsibilities.

CUA 234 - Advanced Line Planning

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 233 or Department Chair Approval.

Teaches students to plan a variety of menus to be prepared in CUA 233 - Advanced Line Prep and Cookery. They will also perform the duties of a supervisor in charge of line cookery. They will be responsible for thorough knowledge of menu items including all methods of cookery. Students will order, pre-prepare, store and organize food and supply items for students in the Advanced Line Prep class. They will also organize work (learning) stations for students in the Advanced Line Prep Class. They will learn how to substitute menu items if there are difficulties in equipment or shortages of food items or personnel. Examples of other areas of learning include inventory, ordering, storage and issuing. By the conclusion of this class, students will be able to supervise an entire line prep station.

CUA 236 - Advanced Baking

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 101, CUA 145

Provides students the opportunity to refine their baking skills in the areas of desserts, yeast breads, garnishing and presentation of baked products. Enables the student to bake, garnish and present a variety of baked goods. These products are prepared and displayed for the public in various locations in the college.

CUA 255 - Supervision in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the current/future foodservice operator, manager, or supervisor with a solid foundation for developing communication skills, planning and decision-making skills, and skills for creating a goal-oriented environment utilizing management principles in the selection, training, evaluating, delegating, motivating, rewarding and disciplining employees. Stresses skills for success through people development.

CUA 261 - Cost Controls

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107, CIS 109, CIS 118, or Department Chair Approval

Corequisite(s): MAT 107.

Provides students with the opportunity to learn the types of costs usually found in the food service industry. Students will learn to apply control techniques to a variety of costs and sales. They will also learn to interpret a variety of financial reports which reflect the relationship between costs and income. Students may take the national Cost Controls test from the National Restaurant Association Education Foundation. If they pass the test with 75% or higher, they will receive a national certificate for the course.

CUA 281 - Internship

Credit(s): 2-6

Internship Hour(s): 6-18

Prerequisite(s): MAT 107, CUA 157, CUA 190, CUA 233, CUA 261 or, HOS 123, HOS 207, and CIS 118; or

Department Chair Approval.

Places students in an actual work situation where they participate in the operation of a foodservice establishment. Hours of work are arranged by the site supervisor and the intern. The number of hours required are determined by the number of credits the course carries.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

Dental Hygiene, AAS

CIP 51.0602

See list of Department Chairs on the Personnel page.

Career Opportunities

The Dental Hygiene program prepares you for a career in a variety of professional settings. The most familiar setting is the private dental office, where hygienists perform critical services to detect and prevent diseases of the mouth. Beyond the private dental office, you can find employment in nursing homes and long-term care facilities, hospitals, corporate health facilities, school systems and public health clinics. You may also work as an educator or researcher.

Program Description

The AAS Degree prepares you to provide dental hygiene services to patients and educate them in aspects of preventive dentistry. In our on-campus clinic, you will provide preventive and therapeutic services for patients under the supervision of Dental Hygiene faculty.

In the traditional role of dental hygienist, training includes prophylaxis, patient data gathering for dental hygiene diagnosis and treatment planning, fluoride treatment, sealant application, radiographic examination and nutritional counseling. In the expanded role of the dental hygienist, training includes treatment of periodontally-involved patients and treatment of handicapped, institutionalized and other medically compromised patients. You also learn to perform local anesthesia and administer nitrous oxide.

Because of the high level of personal and professional responsibility required of a dental hygienist, you must have integrity, maturity, individual motivation, good interpersonal skills, excellent manual dexterity and a solid science and general studies academic background to be successful in this program. We are firmly committed to fostering your intellectual growth and to developing well-qualified dental hygienists with high professional standards and ethics.

The Mini-Certificate in Local Anesthesia and Nitrous Oxide/Oxygen Sedation provides you with knowledge of the theory and practice of local anesthesia and nitrous oxide/oxygen sedation. This program teaches you to administer local anesthetics and nitrous oxide proficiently and safely. The administration of local anesthesia and nitrous oxide/oxygen sedation may be performed by licensed dental hygienists under the Colorado State Dental Practice Act. You must be currently enrolled in the Dental Hygiene program to enter this program.

Program Requirements

Entrance Requirements:

You must complete a current Dental Hygiene program application and meet all minimum requirements and application timelines. The application is available through the Dental Hygiene program, at the PCC Dental Hygiene website or in Admissions & Records. You should seek advisement from program faculty for assistance with applications, minimum requirements and required general education courses for admissions. In addition, all students entering the program will need a current CPR card good for 2 years.

If you are an AAS Dental Hygiene student, you must complete all General Education/Related Requirements.

Note: All students are accepted provisionally pending completion of a criminal background check. Disclaimer: The Colorado Board of Dental Examiners requires a dental hygienist applying for licensure to answer questions concerning felony history, excessive use or abuse of controlled substances/alcoholic beverages (within the last five years) and any physical or mental condition that may affect the ability to practice dental hygiene. Other questions asked by the State Board pertain to an applicant's history of malpractice judgment and any disciplinary action by any government or private agency. The PCC Department of Dental Hygiene assumes no responsibility for the denial of licensure by the Colorado State Board of Dental Examiners.

Total Credits: 92.5

*** Within five years of application**

Degree Requirements

General Education Requirements (28 Credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 109 - General, Organic, and Biochemistry

Credit(s): 4

Lecture Hour(s): 4

Focuses on fundamentals of inorganic, organic and biochemistry primarily for students in health science, non-science majors and/or students in the occupational and health related career areas. Includes the study of measurement, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base chemistry, gas laws, condensed states of matter and nuclear chemistry, nomenclature of organic compounds, properties of different functional groups, nomenclature of various biological compounds, their properties and biological pathways. This course has no lab and may not be transferable.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum Requirements (64.5 Credits)

First Year-Fall Semester (14 Credits)

DEH 101 - Preclinical Dental Hygiene Lecture

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces basic dental hygiene theory, instrumentation, and patient care assessment. Focuses on the application of diagnostic, preventive, and therapeutic procedures in a wide variety of areas related to clinical practice, health promotion, and disease prevention.

DEH 102 - Preclinical Dental Hygiene Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces the entry-level dental hygiene student to fundamental procedures and techniques to include instrumentation, infection control, and patient assessment. Provides a variety of clinical learning experiences to develop basic skills and knowledge for entry into the dental hygiene profession.

DEH 103 - Dental Anatomy and Histology

Credit(s): 3

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces the general anatomy of the face including terminology, anatomic landmarks, and tooth identification. Specific focus is placed on the anatomical and histologic features of the teeth and other structures of the oral cavity. Introduction to the embryology of the face, oral, and nasal cavities is presented, as well as development of the teeth and histological features of the various components of the teeth and surrounding structures.

DEH 104 - Dental Radiology

Credit(s): 3

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces principles of x-radiation production and safety factors; application and theory of properly exposing, processing, mounting and evaluating radiographs; identification of normal anatomic landmarks and pathologic conditions. Focuses on utilization of the laboratory in performing procedures necessary to produce quality radiographs.

DEH 105 - Introduction to Dental Hygiene

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Provides the first year dental hygiene student with the basic knowledge, theory, and skill necessary to advance to subsequent clinical dental hygiene courses. This course includes an introduction to the principles of basic instrument recognition, expected professional and ethical behaviors, HIPAA and FERPA compliance, OSHA standards for infection control, dental software systems, oral hygiene instruction, dental hygiene care planning for the patient, and proper consent form documentation.

DEH 202 - Applied Nutrition in Dentistry

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Gives students a fundamental understanding of general nutrition with an emphasis on the interrelationship between nutrition and dental health. Focuses on recognizing nutritional deficiencies and how to conduct and evaluate nutritional surveys on patients.

First Year-Spring Semester (13.5 Credits)

DEH 111 - Dental and Medical Emergencies

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Introduces the management of emergency situations in the dental office setting. Explains the management of emergency situations with an emphasis on prevention and identification of potential medical emergencies that can occur in the dental office or during dental treatment. Provides practical skills applicable to dental hygienists and the scope of responsibility for medical emergency management as dictated by state dental practice law. Includes content and use of emergency kits, oxygen support systems, use of ASA classification to evaluate risk, and emergency management simulations.

DEH 122 - Periodontics I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Introduces the principles of periodontics. Focuses on recognition of the tissues in health and disease, macro and microanatomy of the periodontium, and histopathology of periodontal diseases and other related gingival conditions. Provides the theory and discussion of periodontal assessment, etiology, epidemiology, inflammatory process/immune response, and the AAP classification system.

DEH 123 - Head & Neck Anatomy

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Analyzes the anatomy and function of the head and neck with emphasis on the muscles of mastication and facial expression, bones of the head and neck, the temporomandibular joint, lymphatic, glandular system, vascular supply, nervous system, and the oral cavity.

DEH 126 - Dental Materials

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Examines the science of dental materials providing a sound knowledge of the use and function of these materials in clinical practice. Covers didactic and laboratory experiences of the physical properties, chemistry, and clinical applications of the materials used in the practice of dentistry.

DEH 153 - Clinical Theory of Dental Hygiene I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Builds on the broad theoretical basis provided in DEH 101 and DEH 102. Focuses on enhancing patient assessment skills, instrumentation and additional information on preventative and prophylactic clinical procedures.

DEH 170 - Clinical Practice of Dental Hygiene I

Credit(s): 4.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides clinical experience in patient skills assessment, instrumentation and additional preventative and prophylactic clinical procedures.

Second Year-Summer Semester (6 Credits)

DEH 133 - Local Anesthesia

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 111, DEH 123, current enrollment in Dental Hygiene program.

Provides a working knowledge of the theory and practice of local anesthesia as applied to the practice of dentistry/dental hygiene. Emphasizes mastery of the armamentarium and techniques of regional anesthesia. Covers the knowledge and skills necessary to administer local anesthetics proficiently and safely.

DEH 134 - Advanced Clinical Skills

Credit(s): 1

Lecture Hour(s): 0.70

Voc/Tech Clinic Hour(s): 0.60

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on dental hygiene theory and laboratory experiences with major topics related to advanced clinical skills, including advanced instrumentation fulcrums, root morphology, periodontal files, periodontal file sharpening, mini currettes, after five currettes, nabors probe, universal focus spray ultrasonics and scaling implants.

DEH 138 - Nitrous Oxide/Oxygen Sedation

Credit(s): 1

Lecture Hour(s): 0.80

Voc/Tech Clinic Hour(s): 0.40

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Provides a working knowledge of the latest equipment and methods of nitrous oxide/oxygen sedation administration in the dental office.

DEH 171 - Clinical Practice of Dental Hygiene I-A

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Current enrollment in Dental Hygiene program.

Continues patient care sessions for the performance of traditional dental hygiene treatment. Enables the student to provide treatment to periodontally involved patients utilizing advanced instrumentation and power scaling.

Second Year Fall Semester (17 Credits)

DEH 132 - Applied Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Examines general pharmacology and discusses relevant drugs that may influence the management of dental hygiene patients. Completion of the course enables students to perform safe and effective evaluations of patients for dental hygiene treatment.

DEH 204 - Community Dental Health I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Course provides instruction in the concepts, methods and issues of dental public health. Emphasis is placed on evidence-based criteria for effective promotion and prevention of dental disease in the public health setting. Concepts of dental health education and program planning in the community setting are reinforced through case-based materials, including methods of assessment, planning, implementation and evaluation of effectiveness. Course activities will reinforce skills in speaking and writing effectively in preparation for the subsequent community dental health field experience course.

DEH 213 - General and Oral Pathology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the fundamentals of general pathology and the disease process. Covers oral pathology with emphasis on recognition and identification of pathologic conditions that most frequently occur around the oral cavity. Helps students identify appropriate referral mechanisms to render a definitive diagnosis.

DEH 242 - Periodontics II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): DEH 122.

Continues to explore theoretical/clinical preparations with emphasis on dental hygiene process of care, treatment planning, nonsurgical treatment, evaluation of treatment and maintenance needs of the periodontal patient. Develops research and decision-making skills with use of library and Internet resources relating to risk factors, etiologic agents and treatment modalities. Includes comprehensive periodontal assessment, supplemental diagnostics, periodontal pharmacology and evidence-based treatment planning.

DEH 268 - Clinical Theory of Dental Hygiene II

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides the didactic theory for clinical practice of dental hygiene skills at the beginning of the second year of dental hygiene curriculum. Builds on clinic theory from first year curriculum to provide the knowledge base needed for treatment of patients with more advanced periodontal disease and medical/health factors. Focuses on periodontal charting and documentation, interpretation of periodontal factors on radiographs, use of treatment planning in the dental hygiene process of care, legal parameters of record keeping and informed consent, use of oral photography, application of sealants, treatment of dental hypersensitivity, application of chemotherapeutics and professional oral irrigation, application of ergonomics in dentistry, clinical dental hygiene treatment considerations for patients with history of cardiac complications and diabetes.

DEH 270 - Clinical Practice of Dental Hygiene II

Credit(s): 6

Voc/Tech Clinic Hour(s): 12

Prerequisite(s): Current enrollment in Dental Hygiene program.

Covers patient care sessions for the performance of traditional dental hygiene treatment. Continues and expands periodontal patient care and special patient care sessions. Focuses on clinical competence in margination and polishing of restorations, nutrition counseling, oral irrigation, chemotherapeutics and OSHA compliance.

Second Year-Spring Semester (14 Credits)

DEH 221 - Ethics and Practice Management

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the transition from an educational environment to a working dental business. Enables the student to learn management skills of operating a dental office. Emphasizes opportunities for self-exploration in development of personal and professional goals. Examines professional ethics, legal issues and the relationship to the licensed practice of dental hygiene.

DEH 225 - Community Dental Health II: Field Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 204.

Provides practical application of community dental health theory and opportunities to conduct needs assessments on a variety of populations. Emphasizes meeting the educational needs of specific populations through program planning, implementation and evaluation. Incorporates supervised field experiences in low-income, school and other public facilities, as well as private health and education oriented organizations.

DEH 259 - Advanced Dental Hygiene Theory

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the care of patients with special needs, such as physical and mental disabilities and systemic conditions. Emphasizes patient management and treatment considerations.

DEH 271 - Clinical Practice of Dental Hygiene III

Credit(s): 6

Voc/Tech Clinic Hour(s): 12

Prerequisite(s): Current enrollment in Dental Hygiene program.

Continues patient care session with emphasis on attaining a level of competency and efficiency for successful performance in clinical board exams and private practice. Focuses on clinical skill development in tobacco cessation, product selection, patient communications, curettage and Special Topics developed patient treatments. Provides elective extramural clinical sites for additional practice.

DEH 282 - Periodontics III

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): DEH 122.

Course provides comprehensive dental hygiene clinical management techniques for periodontal patients supported by application of basic clinical research sciences. Focus is on the therapy component of periodontics, including instructional sessions covering the general principles of periodontal surgery, the surgical management of soft tissues and osseous defects, wound healing, implants, and the role of occlusion in periodontal therapy.

DEH 285 - Clinical Theory of Dental Hygiene III

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Serves as the Capstone course of the final semester of a two-year curriculum. Prepares the student for two major goals - basic competence for transition to provision of dental hygiene services in private practice and the ability to successfully pass both written National Boards examinations and regional dental hygiene clinical examinations. Emphasizes the application of case-based learning. Major topics include cosmetic bleaching, air powered polishing devices, application of the re-evaluation process in treatment planning for periodontally involved cases, preparation for the CRDTS regional clinical exam process, application of an effective tobacco cessation process, technique and process for gingival curettage, technique and process for amalgam polishing and margination, care of cosmetic dental restorations, and maintenance of implants.

Optional Recommended Courses (2.5 Credits)

DEH 136 - Clinical Dental Roentgenology

Credit(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current enrollment in Dental Hygiene program.

Enhances clinical competence of basic radiographic principles including intra-oral, positioning techniques, exposure factors, bisecting technique, vertical bitewing survey and management of anatomical deviations.

DEH 266 - National Boards Review

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides formal review sessions for second-year dental hygiene students preparing to sit for the National Board Examination.

Early Childhood Education, AAS

CIP 13.1210

See list of Department Chairs on the Personnel page.

Program Description

This program prepares you to become a productive, caring, and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive, and physical development. Clses also focus on culutral diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Total Credits: 60

Degree Requirements

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

OR

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

OR

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

- Arts and Humanities **Credit(s): 3**
- Social and Behavioral Sciences **Credit(s): 3**

Core Curriculum Requirements (39 Credits)

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 205 - Nutrition, Health and Safety

Credit(s): 3

Lecture Hour(s): 3

Focuses on nutrition, health and safety as key factors for optimal growth and development of young children. This course includes nutrition knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families for early childhood educators. This course addresses children ages birth through 12 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 226 - Creativity and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Provides an emphasis on encouraging and supporting creative self-expression and problem-solving skills in children. Explores creative learning theories and research. Focuses on developmentally appropriate curriculum strategies in all developmental domains. Addresses ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 240 - Administration of Early Childhood Care and Education Programs

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Provides foundational knowledge in early childhood program business operations, program development and evaluation. This course covers administrative skills, ethical decision making, risk and resource management, and components of quality Early Childhood Education (ECE) programs serving children ages birth through 12 years.

ECE 241 - Administration: Human Relations for Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Focuses on the human relations component of an early childhood professional's responsibilities. This course includes director-staff relationships, staff development, leadership strategies, family-professional partnerships and community interaction.

ECE 260 - The Exceptional Child

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of critical elements related to educating young children with disabilities or special needs in the early childhood setting. Topics include typical and atypical development; legal requirements; research-based practices related to inclusion; teaming and collaboration; and accommodations and adaptations. This course examines how a disability or special need may impact a young child's learning process. This course addresses children ages birth through 8 years.

ECE 288 - Practicum: Early Childhood Education

Credit(s): 3

Lecture Hour(s): 1

Practicum Hour(s): 4

Prerequisite(s): Successful completion of ECE 101 and ECE 102

Provides students with advanced field experience opportunities in early childhood education programs.

Electives (6 Credits)

Select two courses:

ECE 125 - Science/Math and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Examines 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.

ECE 256 - Working with Parents, Families, and Community Systems

Credit(s): 3

Lecture Hour(s): 3

Examines 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. Effective activities and resources to support family involvement in the classroom will be created. This course addresses children ages birth through 8 years.

EDU 221 - Introduction to Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on the historical, social, political, philosophical, cultural and economic forces that shape the United States public school system. Includes current issues of educational reform, technology as it relates to education and considerations related to becoming a teacher in the state of Colorado. Special interest will be paid to the topic of diversity in the K-12 school system.

LIT 255 - Children's Literature

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the Composition I level

Examines the criteria for selecting appropriate literature for children. Explores literature through a variety of genres, age levels, values taught through literature, and literary and artistic qualities of various texts GT:AH2

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

Electromechanical Technology, AAS

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Industrial Electronics Technology prepares you for a career as an electronics technician, an electromechanical technician, a semiconductor manufacturing technician or an electromechanical field service technician.

Program Description

This program develops essential skills for maintaining the complex electromechanical systems found in modern automated manufacturing facilities. After completing a core of courses in math, physics, fundamental analog and digital electronics, robotics and programmable logic controllers, you will branch off into one of two optional tracks. The electromechanical option emphasizes a broader range of skills, including print reading, motors and controls, and mechanical components. In addition to the two AAS degree options, several certificate options are also available.

Program Requirements

Entrance Requirements:

You should have good basic reading, language and math competencies. High school algebra and physics are recommended but not required. Refresher classes are available.

Total Credits: 64

Degree Requirements

General Education Requirements (15 Credits)

CIS 110 - Intro to Computing Technology (Device)

Credit(s): 1

Vocational Lab Hour(s): 1

Introduces basic computing technology with an emphasis on document creation and storage. Use of technology for email, web surfing, and access to course materials is included.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

or

- Any 1 credit hour COM class offered in the fall semester

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

- Any Social/Behavior Science-Arts/Humanities Course

Common Core Requirements (46 Credits)

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 254 - Industrial Wiring

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on the required and recommended practice for industrial wiring. The National Electrical Code is applied to industrial power and control wiring. Covers specification and installation of wiring, conduit, enclosures and termination components in lecture and applied during lab.

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 259 - Advanced Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 258.

Serves as the second in a two-course sequence and covers advanced topics and applications for programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes advanced programming, diagnostics, Human Machine Interfaces (HMIs), introduction to automation networking and system integration. Incorporates lab and project activities that address designing, operating, monitoring, programming, analyzing, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 280 - Internship

Credit(s): 1-12

Internship Hour(s): 3-36

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 business location and with the direct guidance of the instructor.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

MAC 265 - Mechanical Component II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes coupling, vibration, shafting, keys and keyways, belts and chain drives, gears and gear drive, and seals.

MTE 105 - Safety Manufacturing Environment

Credit(s): 1

Lecture Hour(s): 1

Introduces Occupational Safety and Health Administration (OSHA) federal and state regulations, industrial practices, and accident investigation techniques; including topics such as hazard communication standards, lockout/tagout procedures, eye safety, lifting techniques, electrical safety, stored energy safety, Personal Protective Equipment (PPE), and safety program development and monitoring.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern

manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

or

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

Electives (3 Credits)

(Select one class)

CAD 101 - Computer Aided Drafting/2D I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on basic computer aided drafting skills using the AutoCAD software. Includes file management, Cartesian coordinate system & dynamic input, drawing templates, drawing aids, linetype and lineweights, layer usage, drawing & editing geometric objects, polylines & splines, array, text applications, creating tables, basic dimensioning and Help access.

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CNG 121 - Computer Technician I: A+

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Provides students with an in-depth look at personal computer hardware, introduces networking concepts, and covers operational procedures and troubleshooting, all of which are necessary 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. This course helps prepare you for the first CompTIA A+ Exam.

CNG 122 - Computer Technician II: A+

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CNG 121 or Department Chair Approval.

Provides students with an in-depth look at desktop and mobile Operating System support, maintenance and troubleshooting, and an overview of security concepts and interpersonal skills, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with current operating systems, including using common GUI and command line tools, registry editing, system backup and recovery, and advanced troubleshooting. This course helps prepare you for the second CompTIA A+ Exam.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Emergency Medical Services, AAS

Career Opportunities

See list of Department Chairs on the Personnel page.

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-I99, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-I99. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 69

Semester One

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell

structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

Semester Two

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

or

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Semester Three

EMS 225 - Fundamentals of Paramedic Practice

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 226.

Introduces the paramedic student to the advanced practice of prehospital care. This course covers professional behavior, medical ethics, legal issues, patient assessment, therapeutic communication, clinical decision making, and basic and advanced airway management. This course discusses EMS 's role in the healthcare continuum, professional communication, patient care documentation, IV fluid therapy and resuscitation, and the application of evidence based medicine. A brief overview of human anatomy, physiology and pathophysiology is included.

EMS 226 - Fundamentals of Paramedic Practice - Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 225, or have successfully completed EMS 225.

Complete all pre-course screening requirements, including drug test and criminal background check. Instructor approval. Serves as the lab experience to coincide with EMS 225 topics.

EMS 229 - Paramedic Pharmacology

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance

into the Paramedic Education Program.

Corequisite(s): EMS 230.

Introduces the paramedic student to advanced emergency pharmacology, pharmacokinetics and pharmacodynamics. This course will include laws affecting the use and distribution of medications, medication dosing, clinical calculations, routes of administration and discussion of common medication classifications to include indications, contraindications and side effects.

EMS 230 - Paramedic Pharmacology Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 229, or have successfully completed EMS 229.

Teaches the skills necessary for the paramedic to safely and effectively administer emergency medications. Serves as the companion course to Paramedic Pharmacology.

EMS 233 - Paramedic Medical Emergencies

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 234.

Expands on the paramedic student's knowledge of medical emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan. This course will cover principles of epidemiology and pathophysiology related to common medical emergencies including: neurological, abdominal and gastrointestinal disorders, immunological, infectious diseases, endocrine disorders, psychiatric disorders, toxicological, respiratory, hematological, genitourinary, gynecological, nontraumatic musculoskeletal disorders and diseases of the eyes, ears, nose and throat.

EMS 234 - Paramedic Medical Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 233.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of medical emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Medical Emergencies.

Semester Four

EMS 227 - Paramedic Special Considerations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance

into the Paramedic Education Program.

Introduces the paramedic student to concepts in assessing and meeting the emergency care needs of the neonate, pediatric, geriatric and special needs patient. This course focuses on epidemiology, pathophysiology, assessment and treatment of these patient groups. Common medical and traumatic presentations are addressed. Relevant psychosocial and ethno cultural concepts and legal and ethical implications are integrated throughout.

EMS 228 - Paramedic Special Considerations Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 227.

Teaches the skills necessary for the paramedic to effectively assess and treat neonatal, pediatric, geriatric and special needs patients utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Special Considerations.

EMS 231 - Paramedic Cardiology

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to cardiovascular emergencies and the care of patients presenting with cardiovascular emergencies. Topics will include assessment of the cardiovascular system, ECG acquisition and interpretation both single lead and 12 lead, pathophysiology of cardiovascular disease and treatments indicated for a given disease.

EMS 232 - Paramedic Cardiology Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 231.

Teaches the skills necessary for the paramedic to effectively assess and treat patients presenting with cardiovascular emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Cardiology.

EMS 236 - Paramedic Trauma Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 235.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of traumatic emergencies utilizing skills and simulation scenarios. Serves as the companion lab course for Paramedic Trauma Emergencies.

EMS 237 - Paramedic Internship Preparatory

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): EMS 225, EMS 227, EMS 229, EMS 231, EMS 233, EMS 235

Reviews concepts and techniques used in the prehospital setting.

Semester Five

EMS 280 - Paramedic Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 237.

Provides the first course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a member of an ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Semester Six

EMS 281 - Paramedic Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 280.

Provides the second course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a leader of the ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

Fire Science Technology, AAS

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Degree Program Description

The Fire Science Technology is an Associate of Applied Science (AAS) degree designed to meet the needs of fire protection and safety personnel. The program will prepare you for a career in fire science or a related field. Courses are offered through traditional classroom instruction, independent study and hands-on training in conjunction with local fire departments.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology AAS degree requires a minimum of 69 credits for completion. Fifteen credits are in general education, 15 credits are in technical electives and 40 credits are in required technical courses.

A grade of "C" or higher is required in each course.

Total Credits: 60

Degree Requirements

ALSO SEE WILDLAND FIREFIGHTER

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

or

POS 125 - American State and Local Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the structure and function of state, county and municipal governments, including their relations with each other and with national government. Includes a study of Colorado government and politics. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

Technical Courses (33 Credits)

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 101 - Firefighter II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): FST 100.

Addresses the requirements necessary to perform at the second level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level II, standard.

FST 102 - Principles/Emergency Services

Credit(s): 3

Lecture Hour(s): 3

Provides an overview 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; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 105 - Building Construction for Fire Protection

Credit(s): 3

Lecture Hour(s): 3

Provides the 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.

FST 106 - Fire Prevention

Credit(s): 3

Lecture Hour(s): 3

Provides 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.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 109 - Occupational Safety & Health

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout emergency services.

FST 202 - Strategy and Tactics

Credit(s): 3

Lecture Hour(s): 3

Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

FST 209 - Fire Protection Systems

Credit(s): 3

Lecture Hour(s): 3

Provides information relating to the 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.

Technical Elective Courses (12 Credits)

Select up to 12 hours from any of the following: FST, FSW or EMS courses

General Automotive Technology, AAS

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 78

Degree Requirements

General Education Courses (16 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

or

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

or

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

or

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors.

Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations.

This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic

functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Core Requirements (62 Credits)

ASE 102 - Introduction to the Automotive Shop

Credit(s): 2

Lecture Hour(s): 2

Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.

ASE 110 - Brakes I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Introduces the basic theory of automotive braking systems including operation, diagnosis, basic repair of disc and drum friction assemblies, and basic hydraulic braking systems. This course meets MLR/AST/MAST program accreditation requirements.

ASE 111 - Automotive Brake Service II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): ASE 110.

Covers diagnostics, test procedures, and repair to automotive foundation braking system. This course also introduces the components, types of Antilock Braking Systems (ABS), and traction control systems of current vehicles. This course meets MLR/AST/MAST program accreditation requirements.

ASE 120 - Basic Auto Electricity

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Introduces vehicle electricity, basic electrical theory, circuit designs, and wiring methods. This course focuses on multimeter usage and wiring diagrams. This course meets MLR/AST/MAST requirements.

ASE 123 - Starting and Charging System

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of a vehicle battery, testing, service, and repair of starting and charging systems including voltage testing, draw testing. This course meets MLR/AST/MAST program requirements.

ASE 130 - General Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers how to perform basic engine diagnosis to determine condition of engine including engine support systems. This course meets MLR/AST/MAST requirements.

ASE 132 - Ignition System Diagnosis and Repair

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems.

ASE 134 - Automotive Fuel and Emissions Systems I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive fuel emission control systems, filter systems, and spark plugs. This course also includes maintenance to Diesel Exhaust Fluid (DEF) systems.

ASE 140 - Suspension and Steering I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on diagnosis and service of suspension and steering systems and components. This course meets MLR/AST/MAST requirements.

ASE 141 - Suspension and Steering II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers design, diagnosis, inspection, service of suspension, and steering systems used on light trucks and automobiles including power steering and Supplemental Restraint System (SRS) service. This course meets AST/MAST requirements.

ASE 151 - Automotive Manual Transmission/Transaxles & Clutches

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive manual transmissions, transaxles, clutches, and related components. This course meets AST/MAST requirements.

ASE 152 - Manual Transmission, Transaxles and Clutches II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel and all-wheel drive units.

ASE 161 - Engine Repair & Rebuild

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the disassembly, diagnosis and reassembly of the automotive engine. Topics include the diagnostic and repair procedures for the engine block and head assemblies.

ASE 162 - Automotive Engine Repair

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers engine sealing requirements and repair procedures including engine fasteners, bolt torque, repair of fasteners, cooling system, and basic engine maintenance. This course meets AST/MAST requirements.

ASE 210 - Automotive Power and ABS Brake Systems

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of the modern automotive braking systems including the operation, diagnosis, service, and repair of the anti-lock braking systems and power assist units. This course also covers the machining operations of today's automobile brake systems. This course meets AST/MAST requirements.

ASE 221 - Auto/Diesel Body Electrical

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

ASE 233 - Auto Fuel Injection and Emissions Systems II

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

ASE 236 - Advanced Drivability Diagnosis/Repair

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the inspection, testing and repair of typical computerized engine control systems on customer vehicles.

ASE 240 - Suspension and Steering III

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

ASE 250 - Automatic Transmission/Transaxle Service

Credit(s): 1

Lecture Hour(s): 1

Focuses on practical methods of maintaining, servicing, and performing minor adjustments on an automatic transmission and transaxle. This course meets MLR/AST/MAST requirements.

ASE 251 - Automotive Transmission and Transaxle Repair

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation including removal, installation, and replacement of transmission/transaxle and components. This course meets AST/MAST requirements.

ASE 252 - Advanced Automatic Transmissions/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the diagnosis, repair, and rebuild of automatic transmissions and transaxles including the hydraulic, electronic, and mechanical components. This course meets MAST requirements.

ASE 253 - Advanced Manual Transmission/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles, clutches and their related components on customer vehicles.

ASE 260 - Advanced Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors related to customer vehicles.

ASE 264 - Introduction Automotive Heating and Air Conditioning

Credit(s): 1

Vocational Lab Hour(s): 1.50

Covers basic operation of heating and air conditioning components. This course meets MLR/AST/MAST requirements.

ASE 265 - Heating and Air Conditioning Systems

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

ASE 281 - Internship: Basic Heavy Duty and Power Train

Credit(s): 1

Internship Hour(s): 3

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Graphic Design, AAS

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 63

Degree Requirements

Semester 1 - Fall (15 Credits)

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 105 - Typography & Layout

Credit(s): 3

Vocational Lab Hour(s): 4.50

Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving and research. Provides experience producing thumbnails, roughs and digital layouts emphasizing refined creative typography.

Semester 2 - Spring (15 Credits)

ART 121 - Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Investigates the various approaches and media that students need to develop drawing skills and visual perception.
or

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 114 - Adobe Indesign

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces students 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.

Mathematics (3 Credits)

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

or

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Or Choose Any GT-MA1 Mathematics

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and

logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

Semester 3 - Fall (12 Credits)

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

MGD 112 - Adobe Illustrator I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Illustrator as an illustration, design and vector drawing tool. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design. Course competencies and outline follow those set by the Adobe Certified Associate exam in Visual Communication using Adobe Illustrator.

or

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 133 - Graphic Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 105 and MGD 111 or MGD 114, or Department Chair Approval.

Focuses upon the study of design layout and conceptual elements concerning graphic design projects such as posters, advertisements, logos and brochures.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

Semester 4 - Spring (15 Credits)

MGD 233 - Graphic Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 133.

Continues instruction in idea development for advanced graphic design.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

MGD 256 - Graphic Design Production

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 133

Provides an opportunity to combine several draw and paint applications into one design and layout class. Students will explore advanced techniques in creating and designing computer art.

MGD 268 - Business for Creatives

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121 or ENG 131

Presents a guide to freelance work and a study of business practices and procedures and models unique to creative occupations (graphic design, web design, animation, fine arts). Discussion includes determining charges, business forms, business planning, tax structure, licenses and registration, self-promotion (resume, website, portfolio, business identity package). Course may include visits by professionals in the field and discussion of career opportunities in a quickly changing career field.

Human Nutrition (3 Credits)

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

Or Choose any GT-SC1 Physical & Life Sciences with lab

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology

and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience

involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

ENV 101 - Environmental Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources, pollution and environmental protection. Using a holistic approach, students will study how the foundations of natural sciences interconnect with the environment. This course includes laboratory experience.

GEO 111 - Physical Geography: Landforms with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces students to the principles of Earth's physical processes, emphasizing landforms, soils and hydrology. Examines the formation and distribution of landforms, such as mountains, valleys and deserts, and their shaping by fluvial and other processes. The course incorporates an integrated process of lectures, discussion and laboratory assignments.

GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the principles of meteorology, climatology, world vegetation patterns and world regional climate classification. The course includes investigating the geographic factors which influence climate, such as topography, location, elevation, winds and latitude.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms.

Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

GEY 135 - Environmental Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Introduces the subject of geology as it relates to human activities. Geologic hazards such as floods, landslides, earthquakes, and volcanoes are investigated. Mineral, energy, soil, and water resources are discussed in terms of their geologic formation and identification, usage by society, and associated environmental impacts. Land use issues, waste, and pollution are also examined.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 107 - Energy Science & Technology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Explores the science of energy and energy technologies, with a focus on renewable energy resources and clean technologies. It provides a background in the physics of energy, energy transfer and the current state of technology. Students will evaluate the future utilization of renewable technologies. Activities may include investigating

conservation of energy, mechanical, electrical, heat and fluid power systems; energy transfer and loss; understanding energy audits; testing solar collectors and wind generators; and investigating hydrogen fuel cells. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Semester 5 - Summer (6 Credits)

MGD 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

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 business location and with the direct guidance of the instructor.

MGD 289 - Capstone

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

A demonstrated culmination of learning within a given program of study.

Healthcare Information Systems AAS

CIP: 51.0705

See list of Department Chairs on the Personnel Page

Program Description

This program prepares students for professions in the Health Information Management field. The roles of clinicians and information technologists are explored, specifically addressing electronic health records (EHR), safer and cost effective health practices, and the transfer of personal health information nationwide (Health Information Exchange HIE). The HIT program has two degree offerings: Medical Coding and Healthcare Information Systems. The Introduction to

Health Information Technology Certificate and the Medical Coding Certificate serve as stackable credentials for those who have formal training in other disciplines such as Office Management or Cyber Security.

Total Credits: 61

General Education (15 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

- Gen Ed Elective (PSY or COM) **Credit(s): 3**

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HIT Core Curriculum (46 credits)

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HIT 261 - Healthcare Software

Credit(s): 3

Lecture Hour(s): 3

This course covers basic computer system architecture, file structure and design for healthcare settings. Topics include system analysis, design, security and selection for a variety of hardware environments. This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application. Security and confidentiality issues, concerns and implications in relation to the electronic health record will be addressed.

HIT 222 - Quality Management

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the basic concepts of quality management in the healthcare environment. Requirements by regulatory agencies regarding quality documentation, utilization and risk management are discussed. Data collection, verification, analysis, descriptive statistics and presentation techniques will be studied. The course emphasizes the ongoing use of objective data and feedback to improve processes, systems and patient outcomes. Analysis of documentation for various purposes is also covered.

HIT 112 - Legal Aspects for Health Records

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the legal system and defines the role of the healthcare professionals. Specific federal and state laws are identified and discussed as they relate to release of medical information.

HIT 289 - HIT Capstone Course

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department approval required

Provides a demonstrated culmination of learning within a given program of study.

HIT 120 - Working with Health IT Systems

Credit(s): 4

Lecture Hour(s): 4

Provides hands-on experience with a computerized HIT system/electronic health record, utilizing contemporary online systems with simulated data. The course will include additional lecture, project work and practice in the use of HIT systems. Students will play the role of practitioners using these systems and experience threats to security and gain an appreciation of the need for standards and high levels of usability. Students will also learn how errors can occur and ways to minimize them.

HIT 122 - Workflow Fund of Healthcare

Credit(s): 3

Lecture Hour(s): 3

Introduces the fundamentals of healthcare workflow, process analysis and redesign in various healthcare settings. Health information technology culture changes (IT/clinicians) and project management, including HIT system selection, design, implementation and support will also be covered. Electronic health record/practice management systems will be evaluated for quality and process improvement, clinical decision support, health information exchange, public health, and population health management in ambulatory and alternative care settings.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

HIT 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HIT 264 - Data Visualization

Credit(s): 4

Lecture Hour(s): 4

Introduces data visualization tools and techniques software, as well as increasing proficiency in Excel. Students will be able to tell a story with data, communicating observations in a clear, compelling way that provides meaning and explanation. As part of this course, students are also required to complete a professional practicum experience to apply classroom knowledge in a clinical setting.

HIT 265 - Data Analytics Applications

Credit(s): 3

Lecture Hour(s): 3

Deepens understanding of current and emerging practices in the application of data analytics. Topics include clinical, financial, operations and qualitative analytics; trends in practices; customer expectations; regulations that affect analytics; and ethical issues in gathering, analyzing and reporting healthcare data. Explore the roles and applications of descriptive, retrospective and prescriptive analytics in various settings.

HIT Medical Coding AAS

See list of Department Chairs on the Personnel page.

Program Description

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Total Credits: 62

State Guaranteed Transfer Courses (16 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations

from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum Requirements (23 credits)

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HIT 261 - Healthcare Software

Credit(s): 3

Lecture Hour(s): 3

This course covers basic computer system architecture, file structure and design for healthcare settings. Topics include system analysis, design, security and selection for a variety of hardware environments. This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application. Security and confidentiality issues, concerns and implications in relation to the electronic health record will be addressed.

HIT 225 - Health Information Management

Credit(s): 3

Lecture Hour(s): 3

Concentrates on the principles of management as they relate to the administration of the health information management department as part of a healthcare organization.

HIT 222 - Quality Management

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the basic concepts of quality management in the healthcare environment. Requirements by regulatory agencies regarding quality documentation, utilization and risk management are discussed. Data collection, verification, analysis, descriptive statistics and presentation techniques will be studied. The course emphasizes the ongoing use of objective data and feedback to improve processes, systems and patient outcomes. Analysis of documentation for various purposes is also covered.

HIT 112 - Legal Aspects for Health Records

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the legal system and defines the role of the healthcare professionals. Specific federal and state laws are identified and discussed as they relate to release of medical information.

HIT 289 - HIT Capstone Course

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department approval required

Provides a demonstrated culmination of learning within a given program of study.

Medical Coding (23 credits)

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

HIT 220 - ICD Coding I

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232

Introduces the ICD coding classification system and provides a basic understanding of ICD structure, conventions and principles utilized in code assignment. The student will be introduced to the official coding guidelines. They will apply

knowledge of anatomy, physiology, pathophysiology and pharmacology in the assignment of diagnostic and procedural codes.

HIT 241 - CPT Coding Basic Principles

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232.

Provides the student with skill sets to apply the current procedural terminology (CPT) and HCPCS code set principles and guidelines for application in reporting/communicating information and data about clinical services provided to patients by healthcare providers. Includes understanding what the CPT nomenclature is, how and why it is used, and guidelines for each code category and how it is applied to represent services within each code category.

HPR 232 - Disease Process and Treatment

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 106

Covers disease processes and drug therapy used to treat commonly found pathological conditions. Normal anatomy and physiology of each body system is reviewed. Conditions that disrupt homeostasis are examined. Conditions considered are both acquired and congenital. Diagnostic methods, management, treatment modalities and prognosis are discussed. Classifications of drugs are introduced. A general understanding of the actions; absorption, metabolism and excretion; and reasons for use of various groups of pharmacologic agents are introduced.

HIT 252 - Coding II for Certification

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Covers medical necessity and coding issues using ICD and CPT coding principles. Students should already possess a fundamental understanding of the CPT, ICD and HCPCS coding principle. Intensive coding application will be achieved through the use of medical records, case studies and scenarios. DRGs, APCs, RUGs, RBRVs and the Correct Coding Initiative (CCI) will also be covered in this class.

HIT 105 - Principles of Healthcare Reimbursement

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Provides students with the knowledge needed to perform necessary tasks involved in healthcare reimbursement systems, including payment methodologies, use of clinical data and compliance.

HIT 188 - Health Information Practicum I

Credit(s): 2

Practicum Hour(s): 4

Prerequisite(s): HIT 252 or Department Chair Approval.

Provides a directed clinical experience which focuses on the practice of skills related to the application of legal principles, record analysis and abstraction and record retention and retrieval.

HIT 268 - Certification Test Preparation

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares students who have made the decision to obtain a national health information technology credential by completing national credentialing exams.

Industrial Technology Maintenance, AAS

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Industrial Technology Maintenance prepares you for a career as an electronics technician, an electro-mechanical technician, a semiconductor manufacturing technician, or an electro-mechanical field service technician.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

Any general education courses in (8 Credits)

- Arts/Humanities, or Social/Behavioral Science, or Communications, or Natural & Physical Sciences.

Recommendations are

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Core Curriculum Requirements (46 Hours)

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 254 - Industrial Wiring

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on the required and recommended practice for industrial wiring. The National Electrical Code is applied to industrial power and control wiring. Covers specification and installation of wiring, conduit, enclosures and termination components in lecture and applied during lab.

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 259 - Advanced Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 258.

Serves as the second in a two-course sequence and covers advanced topics and applications for programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes advanced programming, diagnostics, Human Machine Interfaces (HMIs), introduction to automation networking and system integration. Incorporates lab and project activities that address designing, operating, monitoring, programming, analyzing, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 280 - Internship

Credit(s): 1-12

Internship Hour(s): 3-36

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 business location and with the direct guidance of the instructor.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

MAC 265 - Mechanical Component II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes coupling, vibration, shafting, keys and keyways, belts and chain drives, gears and gear drive, and seals.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

or

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

IT Systems Administration AAS

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming, and database technologies along with classes that teach the technical aspects of the internet and data communications. Note: Students interested in transferring of a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section of this catalog.

Total Credits: 60

Communications (3 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

OR

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Mathematics (4 Credits)

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

OR

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

General Education Electives (9 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CIS Core (15 Credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

IT Systems Administration Core (25 Credits)

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

MAN 241 - Project Management in Organizations

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): MAT 107

Introduces students to the planning, implementation and control activities of project management, including project and performance evaluation, quality control and work flow analysis. Emphasis will be on the initiating, planning, executing, controlling and closing activities of project management.

Electives (4 Credits)

CNG 251 - Anti Virus Concepts

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Prepares the student for virus eradication. Focuses on how viruses work, how they are designed and how viruses are written. Emphasizes virus eradication and cleaning.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical

expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

Law Enforcement, AAS

CIP 43.0107

See list of Department Chairs on the Personnel page.

Career Opportunities

The Law Enforcement program prepares students for careers in law enforcement as a police officers, desk officer, bailiff or corrections officer. Additionally, students could work as criminal investigators, detectives, police agencies, or in correction and judicial facilities.

Program Description

The Law Enforcement program teaches students an in-depth analysis of the three (3) components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathetic awareness of cultural diversity.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption to complete the Criminal Justice courses. Admission into the Law Enforcement Academy courses requires a student to file an application with the PLEA Department Chair and meet specific guidelines prior to admission into the program (such as state statutory requirements for background checks). You may enroll in PLEA courses only if you are admitted into the program.

Graduation Requirements:

In addition to program requirements for this program, you must complete ENG 121, COM 115, MAT 107 and six (6) credits of social and behavioral science courses.

Total Credits: 67

Degree Requirements

General Education Requirements (15 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

- Select two courses in Social & Behavior Science **Credit(s): 6**

Related Requirements (15 Credits)

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 135 - Judicial Function

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Provides an overview of the structure and function of the dual American judicial system and the behavior of actors (judges/justices, lawyers, law clerks, interest groups, etc.) within the system. Emphasis is placed on the organization and administration of state and federal courts, criminal court procedures, juries, selection of judges, decision-making behavior of juries, judges and justices, and the implementation and impact of judicial policies.

CRJ 145 - Correctional Process

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Examines the history and total correctional process from law enforcement through the administration of justice, probation, prisons, correctional institutions and parole. Also examines the principles, theories, phenomena and problems of the crime, society and the criminal justice system from the perspective of criminology and the criminal justice system in general. Emphasizes the role of sociology and other interdisciplinary approaches to the field of corrections and society's response.

CRJ 210 - Constitutional Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 135.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Focuses on the powers of government as they are allocated and defined by the United States Constitution. The course includes intensive analysis of United States Supreme Court decisions.

CRJ 230 - Criminology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 145.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Provides an introduction to the study of crime, understanding the causes of crime, and examines, theoretical frameworks and theories to explain criminal behavior. Within a social context, consideration is given to how theories have emerged and understand how social context contributes to explanations of crime. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

or

CRJ 280 - Cooperative Education/internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department chair or program coordinator approval.

Provides work experience for students to gain practical work experience related to their educational program.

*Individuals desiring this Peace Officers Standard and Training (P.O.S.T.) course of study must file an application with the Police Academy coordinator before registering. Colorado State law requires that Police Academy students meet specific guidelines prior to admission. *Students pursuing a Police Science area of emphasis are expected to complete the Pueblo Law Enforcement Academy. This must be coordinated with the Director of the Academy and the assigned CRJ student advisor.

Common Core Requirements (37 Credits)

LEA 101 - Basic Police Academy I

Credit(s): 6

Lecture Hour(s): 6

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.

LEA 102 - Basic Police Academy II

Credit(s): 12

Lecture Hour(s): 12

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge 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.

LEA 103 - Basic Law Enforcement Academy III

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Enhances the standards established by the POST board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a police officer. Emphasis will be on expanding the POST curriculum to create a unique learning experience.

LEA 105 - Basic Law

Credit(s): 8

Lecture Hour(s): 8

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.

LEA 106 - Arrest Control Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 107 - Law Enforcement Driving

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 108 - Firearms

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

Library Technician, AAS

CIP 25.0301

See list of Department Chairs on the Personnel page.

Career Opportunities

The LTN program prepares you for a career in a variety of information environments including academic libraries, public libraries, school media centers, special libraries – corporate, correctional, law and medical – and other information services. In rural settings, the Library/Media Technician manages the library/media center and is the person responsible for providing additional library services, such as maintaining the computerized catalog and library webpage, conducting patron orientation and directing library programs.

Program Description

This program offers instruction in a variety of library functions including collection management (selecting and acquiring materials); cataloging; processing and repair of library materials; circulating and shelving materials; helping patrons with reference, readers' advisory and resource sharing services; and managing a small library or media center. We also train you in the nontechnical skills you need to be a successful library technician: customer service, listening, speaking, writing, attention to detail and working as a member of a team.

Program Requirements

Entrance Requirements:

The LTN program is designed for the student who, because of time or distance constraints, is looking for an online degree. The courses use the Desire2Learn platform.

If you plan to transfer to a bachelor's level program, consult with your advisor to determine the transferability of courses.

Total Credits: 60

Degree Requirements

General Education Requirements (33 Credits)

* General Education must total 33 credits.

- English/Speech (Select one) **Credit(s): 6**
 - (ENG 121 and COM 115) or COM 125
- Mathematics **Credit(s): 3**
 - MAT 107 or higher
- Social and Behavioral Sciences **Credit(s): 12**
- Arts and Humanities **Credit(s): 12**

English/Speech (6 Credits)

Select one:

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Core Curriculum Requirements (18 Credits)

LTN 101 - Introduction to Library Services

Credit(s): 3

Lecture Hour(s): 3

Introduces libraries and their procedures through research, vocabulary, readings and assignments. Identifies current tools such as wikis, blogs, podcasting, interactive web pages and other online services. Presents resources for library technicians.

LTN 110 - Selection and Acquisitions

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the tools, vendors, jobbers and approval plans that comprise the selection process. In addition, the student is introduced to acquisitions policy. The student engages in a course project whereby he/she applies a collection evaluation methodology to a section of a library collection and locates and recommends replacement titles.

LTN 115 - Library Circulation

Credit(s): 3

Lecture Hour(s): 3

Discusses customer service and circulation issues and procedures. Students will learn the role of customer service and the effects that automation has had on the circulation function of the library.

LTN 205 - Introduction to Cataloging & Classification

Credit(s): 3

Lecture Hour(s): 3

Introduces the library organization, how to use Dewey and Sears subject headings, elements of cataloging, practice in the use of Dewey and the Library of Congress classification systems, use of cutter tables, subject classification, accession numbers, and bar codes. Basic philosophy, procedures, tools and techniques for library routines are emphasized.

LTN 210 - Reference Materials

Credit(s): 3

Lecture Hour(s): 3

Teaches how to select reference materials, how to use at least 100 reference resources, the reference interview, and the role of resource sharing (interlibrary loan) in reference. Students will prepare a bibliography of the 100 titles they would want in their reference collection and 10 online sources they find useful.

LTN 220 - Library/Media Center Management & Public Relations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of LTN 101.

Includes budget preparation, how to work with staff, the public, and administrators, and the use of statistics.

Electives Approved by Advisor (9 Credits)

All electives must be approved by the LTN Advisor. Students must take sufficient electives to meet the minimum 60 credit hour requirements for the associate degree.

Machining Technology, AAS

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Career Opportunities

The AAS Degree and certificate programs in Machining Technology prepare you to enter the manufacturing world using the latest technology and metalworking skills.

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

The AAS degree provides training in advanced manufacturing using manual and computer-controlled machines. Students will use CAD CAM software to create three-dimensional drawings, solids and surfaces. Students will then utilize geometry to create parts, which are then inspected for industry standard accuracy with top-of-the-line metrology equipment. If completing the AAS degree or currently working in the field, CAD CAM certification and NIMS credentials may be available.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 63

Degree Requirements

General Education Requirements (15 Credits)

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office

application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

- Any combination of Arts/Humanities/Social Sci/COM/Science **Credit(s): 5**

Core Curriculum Requirements (48 Credits)

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 130 - Conventional Lathe Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Includes calculation of speeds and feeds on various materials, identification and application of various work holding techniques, tool forming, advanced machining practices and applications, and spindle tooling. Students will learn how to calculate and turn tapers using the compound slide or taper attachment, offset work on a four jaw chuck, turning between centers, boring, grooving, finishing, single point threading, knurling, tool grinding, drilling operations, and reaming.

MAC 131 - Milling Machines & Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces vertical milling machines. The operations and applications will consist of using the machine controls, speeds

and feeds, spindles, arbors and adapters cutting tools, tool holders, conventional and climb milling applications simple indexing, fixture alignments, work holding methods. Students will become familiar with set-up applications considering offset boring operations, face milling, plain milling, and precision drilling applications. Students will be required to produce parts to a tolerance of +/- .004in. and perform competencies set by manufacturing standards.

MAC 141 - Advanced Machining Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Provides the student the use of various conventional machine tools used in a machine shop environment. The use of engine lathes, horizontal and vertical milling machines, surface grinders, drill presses, pedestal grinders, power cut-off saws and other machine tools commonly used to produce quality machined parts in today 's manufacturing environments. Machining competencies will be stressed and students will be required to produce parts manufactured by local manufacturing companies with the consideration of ISO quality standards.

MAC 203 - Introduction to CNC Operations

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Introduces basic writing and editing of CNC programs. G&M codes, math, speeds feeds, production processes including basic process controls, simple fixturing, and documentation associated with manufacturing will be covered.

MAC 208 - CNC Operations II

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Further develops skills in writing and editing advanced CNC programs. G&M codes, math, speeds feeds, production processes including multi-part, process controls, fixturing, and documentation associated with manufacturing will be covered.

MAC 243 - Mastercam

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces the concepts of creating basic 2D and 3D Mastercam wireframes, building and manipulating surfaces and solids. The practices and techniques of fixture incorporation, tool pathing, and machine code generation will be discussed. Basic user interfaces and custom interface setup will be covered, as well as common file storage.

MAC 241 - CAD CAM 2D Lab

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Requires students to produce a variety of lab exercises on robotic machinery in conjunction with MAC 240 . Aspects of toolpaths for contour, drill and pocket will be covered. Chaining geometry, setting parameters, and managing cutter compensations will be addressed in both multi-tool programs and remachining operations. Coursework will primarily focus on 2D geometry projects.

MAC 250 - Advanced Inspection Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of quality control, TQM and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

EGT 205 - Geometric Dimension & Tolerance

Credit(s): 3

Lecture Hour(s): 3

Focuses on interpreting and applying geometric dimensioning and tolerancing (GDT) in machining or drafting per the ASME Y14.5 specification. Demonstrate and distinguish GDT through math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, run-out and location. Students examine and interpret the generation of a working drawing and how they are developed as a team effort between design, drafting, manufacturing and quality control.

CAD 255 - Solidworks/Mechanical

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces parametric feature-based solid modeling 3D concepts to build confidence in 3D thinking and progresses to three-dimensional parameters. The student learns to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models.

Medical Assistant, AAS

CIP 51.0801

See list of Department Chairs on the Personnel page.

Career Opportunities

The Medical Assistant Program will prepare the student for a career in medical assisting. Medical assistants can work in a variety of settings – physician offices, outpatient facilities, urgent care centers and other ambulatory health care services. Medical assistants play a vital role in the success of a medical practice and play the role of a liaison between the physician and the patients.

Program Description

The Medical Assistant program will prepare the student to primarily work in the back office of a medical practice, along with teaching some basic front office duties. Students will be taught the clinical tasks of drawing blood, giving injections, performing lab tests, taking patient histories and measuring vital signs. The administrative tasks include

scheduling appointments, coding medical information and bookkeeping. Students will serve an internship and prepare for a national certification exam to become a Registered Medical Assistant.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Enrollment in the program is limited. Students must apply for admission to the program prior to the deadline. Students will be notified in writing of conditional acceptance. Clinical sites used during the program require that you successfully complete a background check and drug screen. These need to be completed before final acceptance into the program. Students must also obtain CPR certification and immunization series within the first semester of the program.

Graduation Requirements:

Students must complete all credits and courses listed in the curriculum with a "C" grade or higher.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the

importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Arts and Humanities **Credit(s): 3**

Core Curriculum Requirements (40 Credits)

Semester 1 - Fall

HPR 106 - Law & Ethics for Health Professions

Credit(s): 2

Lecture Hour(s): 2

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

MOT 135 - Basic Medical Sciences III

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the renal, reproductive, neurological, and endocrine systems. The scope of material is limited for the medical office technology personnel.

MAP 110 - Medical Office Administration

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the administrative duties specifically used in medical offices.

MOT 125 - Basic Medical Sciences I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required.

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the immune, musculoskeletal, and digestive systems. A discussion of pediatric implications as they relate to clinical physiology will also be covered. The scope of the material is limited to the medical office technology personnel.

MOT 133 - Basic Medical Sciences II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the cardiovascular, respiratory, integumentary, and senses systems. The scope of the material is limited for the medical office technology personnel.

Semester 2 - Spring

HPR 119 - Computers in Healthcare

Credit(s): 2

Lecture Hour(s): 2

Introduces basic computer technology, file management, and PC system components as used in Health Care settings. Provides an overview of word processing, spreadsheets, and personal information management software. Introduces the Electronic Health Record (EHR), its content, EHR software, EHR management, patient management and scheduling, and privacy and security of the EHR.

MAP 120 - Medical Office Financial Management

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Covers the practical uses of accounts and records with emphasis on accounting principles and analysis for use in a medical office. This course introduces outpatient coding with an ultimate goal to present a clear picture of medical procedures and services performed, such as Current Procedural Terminology (CPT) codes, correlating the diagnosis, symptom, complaint or condition, and International Classifications of Diseases (ICD) codes, thus establishing the medical necessity required for third-party reimbursement.

MAP 138 - Medical Assisting Laboratory

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the student to basic routine laboratory skills and techniques for collection, handling and examination of laboratory specimens often encountered in the ambulatory care setting.

MAP 140 - Medical Assisting Clinical Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Provides hands-on experience with clinical skills required in medical offices. Delivers theory and skills presentations allowing for students to properly demonstrate techniques for a variety of medical needs.

MAP 150 - Pharmacology for Medical Assistants

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Provides an overview of pharmacology language, abbreviations, systems of measurement and conversions. The Controlled Substances Act, prescriptions, forms of medications, patient care applications, drug classifications/interactions, and safety in drug therapy and patient care are presented. Information regarding the measurement of medications, dosage calculations, routes of administration and commonly prescribed drugs in the medical office is provided.

Semester 3 - Summer

HPR 108 - Dietary Nutrition

Credit(s): 1

Lecture Hour(s): 1

Studies the basic nutritional principles in clinical practice in health care. The course will cover factors which influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states.

MAP 183 - Medical Assistant Internship

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Department Chair Approval.

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. The student assists with a variety of business and clinical procedures. Positions are nonpaid. Student must have permission by program coordinator to begin Internship.

MAP 189 - Review for Medical Assistant National Exam

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares the candidate sitting for the National Registration/Certification examination for Medical Assistant through review and practice. These examinations are given with the intent of evaluating the competency of entry-level practitioners in Medical Assisting, supporting quality care in the office or clinic.

Electives (6 Credits)

- Select 3 from Arts and Humanities
- or**
- Social & Behavioral Science

Medical Sonography, AAS

CIP 51.0910

See list of Department Chairs on the Personnel page.

Associate of Applied Science (AAS) Degree

Applicants to this program must possess a two-year health degree with direct patient care-responsibility or a bachelor's degree in any discipline from a regionally accredited institution.

Career Opportunities

The program prepares you for a career in medical sonography (ultrasound). After graduating from the program, you may take the America Registry of Diagnostic Medical Sonographers (ARDMS) national certification examinations in ultrasound. A Registered Ultrasound Technologist (ultrasonographer) specializes in ultrasound procedures that demonstrate anatomy and pathologies on medical film or electronic (PACS) systems. These images are, in turn, interpreted by radiologists and other physicians for the diagnosis and treatment of disease.

Program Description

DMS is a four-semester program.

The program teaches students to function as critical members of today's health care team. Students will learn and practice important critical thinking/problem-solving skills. Learning appropriate interpersonal and communication skills allows students to interact effectively with other health care team members, patients, and families.

We teach you to use highly complex medical imaging equipment, analyze acquired images for quality, assess patient condition and apply appropriate techniques of patient care and education. In addition to fostering your intellectual

growth, we advise you to exercise good judgment, demonstrate a professional demeanor, display the highest moral and ethical standards and promote the safety of yourself and your patients.

This curriculum includes lab/clinical experience to gain competencies in the areas of ultrasound physics and instrumentation, ultrasound of the abdomen, OB/GYN, small parts and basic vascular sonography.

Total Credits: 68.5

Degree Requirements

General Education Requirements (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Any Arts & Humanities Classes **Credit(s): 3**

Prerequisite Requirements (12 Credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

DMS 101 - Introduction to Sonography

Credit(s): 2

Lecture Hour(s): 2

Provides an overview of sonography for students interested in the Diagnostic Medical Sonography program with an introduction to pulse-echo imaging, general sonography, cardiac sonography, vascular technology and typical career opportunities.

RTE 255 - Multiplanar Sectional Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Radiologic Technology student or imaging professional or permission of instructor.

Offers a course designed to increase knowledge in multiplanar/multimodality sectional anatomy for imaging professionals, radiologic technology students and other interested health care professionals. Correlative studies of line drawings, cadaverous photographs, MRI and CT images are thoroughly studied.

Core Curriculum Requirements (51.5 Credits)

Semester 1 – Fall (11.5 Credits)

DMS 221 - OB/GYN Ultrasound I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101.

Provides a systematic study of embryology to include development of the major organ systems, with correlation to sonographic imaging, at all stages of embryonic/fetal development and the surrounding environment and the ultimate mastery of the foundations of obstetric and gynecological sonography.

DMS 231 - Abdominal Ultrasound I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101.

Offers a systematic study of the abdomen to include the function and development of the major organ systems with correlation to sonographic imaging and the surrounding environment. The student will master the foundations of sectional anatomy and abdominal sonography.

DMS 241 - Ultrasound Physics I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101

Presents the theoretical and practical approach to understanding the fundamentals of ultrasound physics, instrumentation, image characteristics, artifacts and bio-effects. The ergonomics of proper scanning techniques (setting up the cart, chair and room properly to avoid musculoskeletal injury) will also be presented.

DMS 244 - Ultrasound Scanning Lab

Credit(s): 3

Vocational Lab Hour(s): 6

Prerequisite(s): Program admission. Enrollment in a DMS Program.

Prepares the sonography student for ultrasound Internship with an emphasis on applied instrumentation, ergonomics and image optimization.

DMS 280 - Clinical Observation

Credit(s): 2.50

Internship Hour(s): 7.50

Prerequisite(s): BIO 201, BIO 202, RTE 255.

Corequisite(s): DMS 221, DMS 231, DMS 241 and DMS 244.

Prepares the beginning ultrasound student for clinical Internship under the direct supervision of a registered sonographer with a focus on introductory skills necessary for clinical Internship, to include instrumentation, scanning techniques and image evaluation. The student will spend seven hours per week at the clinical site for training in patient care and work efficiency in the clinical setting.

Semester 2 – Spring (14 Credits)

DMS 222 - OB/GYN Ultrasound II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 232, DMS 242, DMS 283.

Provides a systematic study of embryology to include development of the major organ systems, with correlation to sonographic imaging, at all stages of embryonic/fetal development and the surrounding environment and the ultimate mastery of the foundations of obstetric and gynecological sonography.

DMS 232 - Abdominal Ultrasound II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 241, DMS 281.

Corequisite(s): DMS 222, DMS 242, DMS 283.

Offers a systematic study of the gastrointestinal tract, pediatric abdomen, neonatal brain and transplanted organs. The

student will review the necessary sterile technique preceding invasive and intraoperative procedures and will learn the applications of contrast agents in ultrasound. Other imaging techniques will be discussed, as well as the principles guiding the field of sonography. A mock registry examination will be administered to prepare the student for writing the national registry examination.

DMS 242 - Ultrasound Physics II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 282.

Corequisite(s): DMS 222, DMS 232, DMS 283.

Covers a detailed study of ultrasound physics and the application within the clinical setting. Manipulation of technique controls, basic mathematical concepts, various Doppler modalities, equipment artifacts, QC/QA procedures, 3D fundamentals and bio effects are covered. Note: The comprehensive final is in a registry review format.

DMS 281 - Clinical Internship I

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 244, DMS 280.

Offers the initial clinical course wherein the fundamental principles of abdominal, OB/GYN and ultrasound physics will be applied under the direct supervision of a registered sonographer. The mastery of the foundations of instrumentation, scanning techniques, and image evaluation in sectional planes in abdominal and OB/GYN sonography will be stressed.

Semester 3 – Summer (12 Credits)

DMS 205 - Small Parts Ultrasound

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 206, DMS 282.

Designed to teach specific knowledge of anatomy of the breast, thyroid, scrotum, prostate and the surrounding structures. The ability to identify pathology or to locate abnormalities is also an intricate part of the class.

DMS 206 - Vascular Ultrasound

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 205, DMS 282.

Covers basic positioning and scanning protocol of the vascular system. Review of the anatomy, hemodynamics and terminology unique to the vascular system with emphasis on the external carotid system, the upper and lower venous and arterial systems and the abdominal vasculature will be included.

DMS 282 - Clinical Internship II

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 281.

Offers continued clinical experience for the ultrasound student. Application of the small parts didactic lectures will be applied and will include image evaluation and cross-sectional anatomy of the thyroid, breast and scrotum. The foundations of vascular anatomy, instrumentation, scanning techniques and image evaluation will be stressed. The student will spend 30 hours per week at the clinical site under the direct supervision of a registered sonographer.

Semester 4 – Fall (11 Credits)

DMS 283 - Clinical Internship III

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 282.

Continues clinical experience for the ultrasound student. Application of the topics covered in advanced didactic lectures to include an introduction to invasive procedures using ultrasound guidance. Sterile technique and standard precautions will be reviewed. The student will spend 30 hours per week at the clinical site under the direct supervision of a registered sonographer.

DMS 289 - Ultrasound Capstone

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): DMS 282.

Corequisite(s): DMS 283.

Prepares the sonography student to effectively search for a job and sit for the American Registry of Diagnostic Medical Sonographers examination in their specialty.

Networking Cyber Security, AAS

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 60

Degree Requirements

General Education Requirements (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

or

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

General Education Electives (9 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

Core Curriculum Requirements (35 Credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

CNG 258 - Digital Forensics

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): CNG 124.

Corequisite(s): CIS 220.

Exposes the student to the field of digital computer forensics and investigation. This class provides the student with methods to properly conduct a digital forensics investigation including a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analyses.

Academic or Vocational Electives (10 Credits)

CNG 254 - Data Encryption

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Exposes the student to data encryption models. Examines the differences between data storage including Microsoft, Novell Netware and UNIX. Includes encryption and data transmission. Covers encryption over various networks including the Internet.

or

CNG 256 - Vulnerability Assessment I

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 220, CNG 124, and CNG 132.

Presents students with an introduction to vulnerability assessment. Vulnerability assessment skills are necessary to understand how companies address vulnerabilities in the business environment. Students gain a better understanding of how information technology security integrates into the corporate world and how a balance must be achieved between security and functionality.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

or

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

or

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

Nursing, LPN to ADN, AAS

CIP 51.3801

See list of Department Chairs on the Personnel page.

Program Description

The LPN-ADN program teaches you skills of direct patient care that you can apply in any healthcare setting. It offers theoretical and applied instruction in classrooms, simulated laboratories, and clinical settings. It integrates education in

adult, gerontological, obstetric, pediatric, and psychiatric-mental health nursing. Your clinical learning will take place in diverse types of institutions.

The Nursing program has a selective and limited admission policy. The application is available online at Pueblo Community College Nursing from October 1 to November 15. All Nursing Division programs have essential functions to help you be successful in the program and career. Applicants must have a current Colorado LPN license. Accepted applicants will receive 21 PLA credits. **No in progress grades will be accepted.**

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Total Credits: 71.5

First (11 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

Second (11 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Third (4 credits)

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

Spring (9.5 credits)

NUR 189 - Transition from LPN to ADN

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 1.50

Prerequisite(s): Admission to Nursing program.

Facilitates transition of the LPN to new roles and responsibilities of the ADN, the nursing process, critical thinking,

legal and ethical issues in nursing practice, and the nursing care of childbearing families and pediatric clients. Application of knowledge and skills occurs in the laboratory and maternal/child and pediatric clinical settings.

NUR 206 - Advanced Concepts of Medical-Surgical Nursing I

Credit(s): 6.50

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of the program director.

NUR 206 builds on NUR 106 focusing on advanced concepts of nursing applied to care of patients with high acuity medical/surgical conditions. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in a variety of healthcare settings. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of clinical settings.

Summer (6 credits)

NUR 211 - Psychiatric-Mental Health Nursing

Credit(s): 4

Lecture Hour(s): 2.70

Voc/Tech Clinic Hour(s): 3.90

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of program director.

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 psychiatric clinical conditions/disorders.

NUR 212 - Pharmacology II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing program and successful completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 211 or permission of the program director.

Builds on previously introduced pharmacological concepts and applies that learning to pharmacologic therapy to provide safe, quality, evidence-based nursing care to patients with complex healthcare needs. Focuses on safety and quality improvement factors in the administration of medications within a variety of healthcare systems. Advanced dosage calculations included.

Fall (9 credits)

NUR 216 - Advanced Concepts of Medical Surgical Nursing II

Credit(s): 5

Lecture Hour(s): 2.30

Voc/Tech Clinic Hour(s): 8.10

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 206 and NUR 212 or permission of the program director.

Nursing 216 is a continuation of Nursing 206, focusing on complex medical/surgical conditions of the high acuity patient. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients experiencing high acuity medical/surgical conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of knowledge and skills occurs in a variety of clinical settings.

NUR 230 - Transition to Professional Nursing Practice

Credit(s): 4

Lecture Hour(s): 1.60

Voc/Tech Clinic Hour(s): 7.20

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 216 or permission of the program director.

Nursing 230 is a Seminar and practice Capstone course that provides an integrative experience applying all dimensions of the professional nurse in the care of diverse patient populations across a variety of healthcare settings. All major concepts of the nursing program are addressed. Leadership and the management of multiple patients are emphasized. Application of knowledge and skills occurs in the clinical setting to facilitate an effective transition from student to registered professional nurse.

Other Information

¹ AAA 109, Advanced Academic Achievement may be substituted with a guaranteed transfer course, Humanities, or Social Science if student has more than 15 college credits.

² Course must be completed within 10 years of entrance into the program.

Occupational Therapy Assistant, AAS

CIP 51.0803

See list of Department Chairs on the Personnel page.

Career Opportunities

The OTA Program prepares you for a career in helping others improve their quality of life. You will use rehabilitative activities and exercises to help clients of all ages overcome physical, emotional, mental and/or social challenges and maximize one's independence in their activities of daily living. You can work in hospitals, schools, mental health centers, skilled nursing facilities and in the community. PCC graduates hold positions throughout Colorado and in

many different states. The US Department of Labor projects that this will be one of the fastest-growing careers in the foreseeable future.

Program Description

This program teaches you to work under the supervision of a registered occupational therapist to assess clients of all ages, design individual rehabilitative programs, create goals and help clients meet their goals while monitoring their progress.

The program consists of 18 months of academic preparation and 16 weeks of fieldwork prior to graduation. When you graduate from the program, you are eligible to take the national certification examination administered by the National Board for Certification in Occupational Therapy (NBCOT). In addition, Colorado requires licensure through the Colorado Department of Regulatory Agencies (DORA).

Program Requirements

Entrance Requirements:

The OTA program has a selective admissions policy due to a limited number of fieldwork sites. You must submit a completed application packet, available through the Health and Public Safety office or on the Pueblo Community College's OTA website (available Nov. 1-March 1). You must have completed all basic skills requirements to perform at a college level in Reading, Math and English. You must also have a cumulative 2.5 GPA in college courses or on high school transcripts if no college courses have been taken. In addition, you must have vision, hearing, tactile sensation, gross and fine motor strength and coordination, memory, critical thinking and interpersonal skills adequate to allow effective communication, ensure safety of self and others, document accurately, and provide effective assessment and treatment in order to meet facility standards.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for the NBCOT certification exam. Contact NBCOT at 301.990.7979 or www.nbcot.org for an Early Determination Review.

Total Credits: 69

Degree Requirements

Note: All courses other than OTA may be taken prior to admission to the program.

Semester 1 — Fall

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations

from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

or

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

OTA 100 - Introduction to Occupational Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission

Explores career options in occupational therapy through discussion, observation and participation. Identifies the need for areas of occupation and the differences between health, illness and wellness. Describes the history and philosophy of occupational therapy and the roles, responsibilities and relationships between other healthcare professionals. Discusses ethical and legal implications of health care and explores basic sociological issues.

OTA 105 - Occupational Disruption and Activity Analysis

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): Admission into the OTA program.

Explores the diseases and aspects of health and wellness common to occupational therapy intervention and occupational disruption and gains insight to various treatment methods and techniques as well as applying activity/task analysis.

OTA 106 - Basic Occupational Therapy Frames of Reference and Documentation

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Develops the ability to identify the types of occupational therapy documentation and practice basic documentation

skills. Identifies models of practice, frames of reference and occupational therapy theories, founders, underlying assumptions of the theories, and implications to occupational therapy practice and treatment interventions.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Semester 2 — Spring

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

OTA 121 - Assessing Movement Through Occupation

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 105, BIO 106 or BIO 201

Provides communication strategies with clients and caregivers in an inter-professional setting. Students will demonstrate an understanding of how performance skills affect occupation and how assessments such as muscle movement, body mechanics, transfers, range of motion and manual muscle testing will influence rehabilitation.

OTA 122 - Origins of Occupation and Performance from the Neonate to Adulthood

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Explores the impact and influences of environment, community and various contexts of the client, focusing on a dynamic and ever changing occupational status through the influences of areas of occupation, contexts, performance patterns, client factors, performance skills, and activity demands from neonate through middle-age development.

OTA 125 - Basic Occupational Therapy Application to Mental Health

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 105, OTA 106, PSY 101 or PSY 102 or PSY 235

Identifies commonly seen signs and symptoms of mental illness that affect health and wellness and learn methods of screening and various occupational therapy techniques for the assessment and treatment of occupational disruption within a variety of contexts. A Level I Fieldwork experience is integrated within this course.

OTA 131 - Geriatric Concerns, Diseases and Treatment Techniques

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 105 and OTA 106.

Explores aging trends and the impact of context and environmental influences on the older individual, focusing on an ever-changing occupational status through the influences of client factors, activity demands, and performance skills and patterns. Identify geriatric diseases and conditions common to occupational therapy and discuss strategies and methods of intervention.

Semester 3 — Summer

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

OTA 181 - Geriatric Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 131.

Identifies and provides practical experience in commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods for treatment for the geriatric population from diverse backgrounds in an inter-professional setting. Students will demonstrate universal precautions and safety standards in a variety of situations.

OTA 217 - Occupational Therapy Rehabilitation Techniques

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 121

Examines and demonstrates various treatment interventions and techniques based on aspects of health and wellness and physical/cognitive/psychosocial occupational disruption. The course focuses on adaptive equipment, assistive devices, areas of occupation and specialized physical disability assessments.

Semester 4 — Fall

- Humanities **Credit(s): 3**
or
- Social Behavioral Science **Credit(s): 3**

OTA 182 - Physical Disabilities Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 218

Identify and provide practical experience with commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods of treatment intervention for conditions affecting adult clients from diverse backgrounds in collaboration with intra-professional and inter-professional team members.

OTA 183 - Pediatric Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Corequisite(s): OTA 221.

Provides the student with the practical experience necessary to identify commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods of treatment for the pediatric population from diverse backgrounds in collaboration with intra-professional and inter-professional team members.

OTA 216 - Physical Disabilities Neuro-Retraining

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 121.

Provides skills necessary to utilize the occupational therapy treatment planning process, including age-appropriate assessments, treatment interventions and discharge planning within a client-centered and inter-professional context.

OTA 218 - Occupational Therapy Application to Adult Physical Disabilities

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 121.

Provides students with the ability to identify commonly seen medical and orthopedic diseases and disabilities, aspects of health and wellness, and areas of occupational disruption. Students will learn treatment interventions within appropriate frames of reference through a variety of methodologies and will explore aspects of intervention including, but not limited to, splinting, transfers, positioning and communication techniques.

OTA 221 - Pediatric Concerns, Diseases, Disabilities, and Treatment

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 121 and OTA 122.

Explains the impact of environment, culture and community on the child. Focuses on an ever-changing occupational status through the influences of performance skills. Provides the skills necessary to identify commonly seen diseases and disabilities and treatment techniques used in pediatrics to promote health and wellness. Identifies occupational therapy evaluation/assessment techniques and methods of intervention within the context and environment of health care and the community.

OTA 235 - Professional Management for the OTA

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Provides the student with the basic management skills needed as an occupational therapy assistant as well as provides an understanding of effective job seeking skills, the role of the OTA in research, professional responsibilities and lifelong learning.

Semester 5 — Spring

*OTA 280 AND OTA 281 must be completed within 18 months of the didactic coursework.

OTA 278 - OTA Seminar

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 280 or OTA 281.

Provides the opportunity for discussion of Level II experiences and how to apply logical thinking, critical analysis and clinical reasoning strategies to future scenarios. Students will have discussions on continuing lifelong learning opportunities and professional responsibilities.

OTA 280 - Fieldwork in Occupational Therapy I

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): All OTA courses except OTA 278 and OTA 281.

Provides an 8-week, full-time (or an equal amount of hours completed through part-time rotation), supervised

fieldwork to develop professional behaviors consistent with the profession's standards and ethics and apply previously learned academic knowledge as an occupational therapy team member. Students will gain experience in the application of occupational therapy treatment process from admission to discharge for clients from a variety of sociocultural backgrounds and age levels in the practice area of physical disabilities to promote health and wellness.

OTA 281 - Fieldwork in Occupational Therapy II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): All OTA courses except OTA 278 and OTA 280.

n), supervised fieldwork to develop professional behaviors consistent with the profession's standards and ethics and apply previously learned academic knowledge as an occupational therapy team member. Students will gain experience in the application of occupational therapy treatment process from admission to discharge for clients from a variety of sociocultural backgrounds and age levels in the practice area of behavioral/mental health, sensorimotor and/or developmental disabilities as well as promoting health and wellness.

Paramedic to Associate Degree Nursing

See list of Department Chairs on the Personnel page.

Program Description

The Paramedic to RN program teaches you skills of direct patient care that you can apply in any healthcare setting. It offers theoretical and applied instruction in classrooms, simulated laboratories, and clinical settings. The program integrates education in adult, gerontological, obstetric, pediatric, and psychiatric-mental health nursing. Your clinical learning will take place in diverse types of institutions.

The Nursing program has a selective and limited admission policy. The application is available online at Pueblo Community College Nursing from October 1 to November 15. All Health & Public Safety programs have essential functions to help you be successful in the program and career. Applicants must have two (2) years of Paramedic work experience. Eligible paramedics must have an unencumbered license. Accepted applicants will receive 21 PLA credits.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

The Paramedic-ADN program prepares you to provide safe, therapeutic, and competent nursing care in hospitals and other healthcare settings. You may also work as an entry-level patient-care manager.

Total Credits: 71.5

General Education and Program Prerequisites

First (8 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

Second (11 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Third (4 credits)

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

1 Courses must be complete or in progress (Fall Semester) to apply to the program

2 Course must be completed within 10 years of entrance into the Program

3 BIO 106 Basic Anatomy & Physiology plus one credit general education may be used as substitution for BIO 111 General College Biology I

Program Course Schedule

Spring (12.5 credits)

- NUR 175 - Paramedic to ADN Transition **Credit(s): 6**

NUR 206 - Advanced Concepts of Medical-Surgical Nursing I

Credit(s): 6.50

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of the program director.

NUR 206 builds on NUR 106 focusing on advanced concepts of nursing applied to care of patients with high acuity medical/surgical conditions. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in a variety of healthcare settings. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of clinical settings.

Summer (6 credits)

NUR 211 - Psychiatric-Mental Health Nursing

Credit(s): 4

Lecture Hour(s): 2.70

Voc/Tech Clinic Hour(s): 3.90

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of program director.

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 psychiatric clinical conditions/disorders.

NUR 212 - Pharmacology II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing program and successful completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 211 or permission of the program director.

Builds on previously introduced pharmacological concepts and applies that learning to pharmacologic therapy to provide safe, quality, evidence-based nursing care to patients with complex healthcare needs. Focuses on safety and quality improvement factors in the administration of medications within a variety of healthcare systems. Advanced dosage calculations included.

Fall (9 credits)

NUR 216 - Advanced Concepts of Medical Surgical Nursing II

Credit(s): 5

Lecture Hour(s): 2.30

Voc/Tech Clinic Hour(s): 8.10

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 206 and NUR 212 or permission of the program director.

Nursing 216 is a continuation of Nursing 206, focusing on complex medical/surgical conditions of the high acuity patient. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients experiencing high acuity medical/surgical conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of knowledge and skills occurs in a variety of clinical settings.

NUR 230 - Transition to Professional Nursing Practice

Credit(s): 4

Lecture Hour(s): 1.60

Voc/Tech Clinic Hour(s): 7.20

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 216 or permission of the program director.

Nursing 230 is a Seminar and practice Capstone course that provides an integrative experience applying all dimensions of the professional nurse in the care of diverse patient populations across a variety of healthcare settings. All major concepts of the nursing program are addressed. Leadership and the management of multiple patients are emphasized. Application of knowledge and skills occurs in the clinical setting to facilitate an effective transition from student to registered professional nurse.

Physical Therapist Assistant, AAS

CIP 51.0806

See list of Department Chairs on the Personnel page.

Career Opportunities

PTAs work under the direction of physical therapists, helping to manage conditions such as back and neck injuries, sprains/strains and fractures, arthritis, burns, amputations, strokes, multiple sclerosis, birth defects, injuries related to work and sports, and many other conditions. You will work in a broad range of settings, including hospitals, outpatient clinics, rehabilitation facilities, skilled nursing, extended care, sub-acute facilities, homes, schools, fitness centers and sports training facilities.

Program Description

The AAS degree prepares you to serve as a PTA within 5 semesters. The program is offered 2-2½ days per week except during the clinical experiences which occur in the third and fifth semester. Clinical experiences are scheduled for 40 hours per week and placement is typically anywhere in Southern Colorado. Learning experiences include lecture and interactive lab opportunities in a spacious lab with state-of-the-art equipment.

The Physical Therapist Assistant Program at Pueblo Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave, Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; email: accreditation@apta.org; website: <http://www.capteonline.org>. If needing to contact the program/institution directly, please call 719-549-3433 or email Margaret.Oreskovich@pueblocc.edu.

Students accepted into the PTA program must pass a background check and drug screen before being officially admitted into the program. The background check and drug screen must be repeated before the student begins the second year of the program. Students are responsible for all expenses associated with internships and must provide their own transportation to and from clinicals. Financial aid is available through the PCC Financial Aid Office. Additional scholarship and grant information will be posted on the PTA bulletin board as it becomes available.

Program Requirements

The PTA Program has a selective admissions policy. You must submit a PTA application that is available through the Health and Public Safety Division or the PTA website. General Education requirements include ENG 121, COM 115, PSY 101, HPR 138, BIO 201 and PHY 105. BIO 201 and PHY 105 must be completed before the application due date of May 25. All general education courses must be completed with a "C" or above and the applicant must have a minimum GPA of 2.50. Once in the program you must also have a health care provider CPR card to attend clinical experiences and you must provide proof of current immunizations and purchase liability insurance.

Note: Clinical sites used during the program require that you successfully complete a background check and drug screen. These need to be completed before final acceptance into the program.

Total Credits: 75

Degree Requirements

* **May** be completed prior to program admission

** **Must** be completed prior to program admission

Prerequisites

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Core Curriculum Requirements

Semester 1 — Fall

HPR 117 - Anatomical Kinesiology

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201

Studies the Anatomical Bases of Human Movement.

PTA 110 - Basic Patient Care in Physical Therapy

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): Program Admission or Department Chair Approval.

Examines the basic patient care skills for the healthcare practitioner. Enables the student to gain an understanding and demonstrate skills that include positioning, body mechanics, transfers, range of motion, palpation, vital signs, aseptic techniques, bandaging, intermittent venous compression, medical terminology, activities of daily living, wheelchair management, architectural barriers and gait training.

PTA 115 - Principles and Practices of Physical Therapy

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission or department chair approval.

Explores the history of the profession including definition, development and areas of practice. The role of the APTA,

the physical therapist assistant and the relationship between the physical therapist, PTA and other health care professionals are investigated. Includes current issues and trends including professionalism, ethics, quality assurance, communications and reimbursement issues such as Medicare, Medicaid, workers' compensation and commercial insurance.

PTA 131 - Professional Communications I

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program Admission.

Introduces students to oral and written professional communication in their field. Develops skills in verbal and nonverbal communication, conducting self-critiques and peer reviews, research of professional literature, medical documentation and professional presentations.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

Semester 2 — Spring

PTA 120 - Modalities in Physical Therapy

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 110.

Examines theory and principles of physical therapy modalities. Course includes therapeutic heat and cold, traction, massage and hydrotherapy.

PTA 135 - Principles of Electrical Stimulation

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Investigates the principles and application of electrical stimulation (ES) modalities currently used in physical therapy practice. Enables the student to understand the electrochemical and physiological effects of electrical stimulation and identify the various forms and applications of ES.

PTA 140 - Clinical Kinesiology

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): HPR 117, Program Admission.

Focuses on the science of human motion, theories of biomechanics and muscle/joint structure and function. Emphasizes

basic principles of therapeutic exercise and their application to specific body regions. A laboratory experience that includes the application of kinesiology and exercise principles is integrated in the learning experience.

PTA 141 - Professional Communications II

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): PTA 131.

Builds on PTA 131 - Professional Communications I and develops skills in writing professional documents to patients and other healthcare professionals, participating effectively in meetings, and medical documentation skills.

PTA 124 - Rehab Principles of Medical I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program Admissions.

Investigates the impairments, functional limitations and disabilities resulting from a variety of neuromusculoskeletal conditions. The medical management including pharmacology and its impact on physical therapy rehab principles are discussed. Evidence-based practice for musculoskeletal and neurological system diagnosis will be reviewed as they relate to physical therapy rehab.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

Semester 3 — Summer

PTA 134 - Rehab Principles of Medical II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program Admissions.

Investigates the impairments, functional limitations, disabilities and medical management including pharmacology of a variety of traumatic, immunological, inflammatory and degenerative processes and their impact on physical therapy rehab principles. Evidence-based practice for cardiovascular, respiratory, endocrine and chronic pain diagnosis will be reviewed as they relate to physical therapy rehab.

PTA 280 - PTA Internship I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): PTA 120, PTA 140

Focuses on initial clinical exposure providing hands on patient practicum skills and techniques. Includes application of basic patient care skills including transfers, range of motion, modalities, bandaging, aseptic techniques and gait training. Students demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, geriatric or outpatient setting will provide supervision.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Semester 4 — Fall

PTA 205 - Psychosocial Issues in Health Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission.

Explores the psychosocial aspects of the patient/client and health care practitioner. Investigates recognition of and adjustment for psychological, sociological, educational, cultural, economic and political concerns on the delivery of health care services. Communication skills and social and advocacy responsibilities of the health care practitioner are discussed. Enables the student to develop the skills to meet expectations and needs of members of society receiving health care services.

PTA 230 - Orthopedic Assessment and Management Techniques

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 120, PTA 140.

Examines the theory and principles and practices of orthopedic conditions. Includes an understanding of assessment and management techniques pertaining to orthopedic conditions, goniometry, manual muscle testing, gait analysis and posture analysis.

PTA 240 - Neurologic Assessment and Management Techniques

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 120 and PTA 140

Examines the theory and principles of physical therapy with an introduction to assessment, management techniques and advanced physical therapy procedures as they relate to neurologic, cardiac and pulmonary conditions.

PTA 251 - Professional Communications III

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): PTA 141.

Promotes the concepts from PTA 141 - Professional Communications II and further develops written and oral communication skills in the professional arena through correct documentation of patient progress based on observations, dictating progress notes, development of resume, job interview skills, portfolios and an awareness of the national PTA exam.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Semester 5 — Spring

PTA 278 - PTA Seminar

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Successful completion of all previous PTA courses, department approval required

Provides a summary of all coursework, Internships and prepares the student for transition into the workforce as an entry level PTA. It includes a comprehensive review and mock exam in preparation for the national PTA exam, employment benefits, licensing, state practice act review, professional development, employment opportunities and community service.

PTA 281 - PTA Internship II

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Successful completion of all previous courses, department approval required

Focuses on an intermediate clinical experience providing hands-on patient practicum skills and techniques. Includes continued application of physical therapy procedures of Internship I with the addition of therapeutic exercise, goniometry, manual muscle testing and motor learning techniques. Students demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, rehabilitation, outpatient, geriatric or home health setting provides supervision. During the Internship, the student presents an in-service on a physical therapy-related topic.

PTA 282 - PTA Internship III

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Successful completion of all previous PTA courses, department approval required

Incorporates advanced clinical experience providing hands on patient practicum skills and techniques. Students will refine all physical therapy skills in preparation to enter the field as an entry-level physical therapist assistant. This final experience includes independent practice with an assigned caseload under the on-site supervision of a clinical instructor. The student will present an in-service on a physical therapy-related topic.

Radiologic Technology, AAS

CIP 51.0911

See list of Department Chairs on the Personnel page.

Career Opportunities

The Radiologic Technology program prepares you for a career in radiologic technology (radiography). As a graduate of the program, you are eligible to take the American Registry of Radiologic Technologists (ARRT) national certification examination in radiography. You will specialize in radiographic procedures that demonstrate anatomy and pathologies on medical x-ray film, fluoroscopic screens and other electronic imaging devices. These images are, in turn, interpreted by radiologists and other physicians for the diagnosis and treatment of disease and injury.

Program Description

The AAS in Radiologic Technology prepares you to work as a critical member of today's health care team. We teach you important critical thinking/problem-solving techniques as well as interpersonal and communication skills that allow you to interact effectively with other health care team members, patients and families from a variety of professional, social, emotional, cultural and intellectual backgrounds. We provide you with the skills you need to work with highly complex medical imaging equipment, analyze acquired images for quality, assess patient condition and apply appropriate techniques of patient care and education, and achieve the highest degree of clinical competency. The program focuses on developing your intellectual abilities as well as the judgment you need to demonstrate a professional attitude and demeanor, display the highest moral and ethical standards, and foster the safety of yourself and your patients.

Program Requirements

Entrance Requirements:

Prerequisite Requirements: ENG 121, BIO 106, MAT 107, RTE 101, HPR 138

Graduation Requirements:

PSY 235, Arts/Humanities. In addition, students must complete all required Clinical Competencies.

Total Credits: 77

Degree Requirements

* Indicates prerequisite courses for program entry.

General Education Requirements (16 Credits)

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Arts/Humanities **Credit(s): 3**
- or**
- Social and Behavioral Science **Credit(s): 3**

Related Requirements (3 Credits)

RTE 101 - Introduction to Radiography

Credit(s): 2

Lecture Hour(s): 2

Introduces radiology including equipment, exposure, positioning and the knowledge necessary for the radiography student to provide safe patient care including communication skills, body mechanics, patient transfer, and radiography as a profession.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common

prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

Core Curriculum Requirements (58 Credits)

Semester 1 – Fall

RTE 111 - Radiographic Patient Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 101.

Corequisite(s): RTE 121, RTE 131, RTE 141, RTE 181.

Introduces the fundamentals of human diversity; and legal and ethical considerations. Includes lecture and laboratory experience in patient care, standard and transmission based precautions, asepsis versus non-asepsis, vital signs, venipuncture, medical emergencies, drug administration, patients with specific needs and end-of-life interactions.

RTE 121 - Radiologic Procedures I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): RTE 101

Introduces the fundamentals of radiographic equipment to safely obtain radiographs, apply radiation safety techniques, and identify related positioning terminology. This course emphasizes identification of anatomy, common pathology, and radiographic terminology of the upper extremities, chest, and abdomen.

RTE 131 - Radiographic Pathology and Image Evaluation I

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): RTE 101.

Provides a detailed anatomic discussion of the respiratory, digestive, genitourinary systems and related medical terminology. The course will also cover the details of bony anatomy including bone structure, pathology and arthrology.

RTE 141 - Radiographic Equipment/Imaging I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission, RTE 101.

Introduces the fundamental aspects of radiographic equipment including the basic concepts pertaining to x-ray production, x-ray equipment, and photon interactions with matter.

RTE 181 - Radiographic Internship I

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Program admission, RTE 101.

Introduces the clinical education experience at the clinical education center. The student applies knowledge learned in the classroom to the actual practice of radiography. Introduces the clinical education experience at the healthcare facility. The course focuses on the application of knowledge to the actual practice of radiography.

Semester 2 – Spring

RTE 122 - Radiologic Procedures II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): RTE 121.

Reinforces the fundamentals of radiographic positioning of the extremities. This course introduces anatomy, pathology, and skills necessary to perform radiographic procedures of the spine, bony thorax, and abdominopelvic region.

RTE 132 - Radiographic Pathology and Image Evaluation II

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): RTE 131.

Provides a detailed anatomic/pathologic discussion of the spine, circulatory system, nervous system and skull and related medical terminology.

RTE 142 - Radiographic Equipment/Imaging II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): RTE 141.

Provides in-depth knowledge of scatter control, radiographic exposure technique, image acquisition, process, and fluoroscopy. Includes criteria and factors that affect image quality, quality assurance and healthcare informatics.

RTE 182 - Radiographic Internship II

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): RTE 181.

Builds upon prior clinical Internship experience to advance student proficiency in the practice of radiography in the healthcare facility. The course focuses on the application of knowledge to the actual practice of radiography.

Semester 3 – Summer

RTE 183 - Radiographic Internship III

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 182.

Reinforces and builds independence in the clinical Internship experience. Applies radiographic knowledge learned in the classroom and prior clinical Internship experience.

Semester 4 – Fall

RTE 221 - Advanced Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): RTE 122.

Introduces advanced imaging techniques including radiography of the cranium, facial bones and special radiographic procedures. These concepts are combined with the basic oral communication techniques necessary for the professional radiographer.

RTE 231 - Radiation Biology/Protection

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 142.

Provides the basic knowledge and understanding of the biologic effects of ionizing radiation and radiation protection and safety.

RTE 281 - Radiographic Internship IV

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): RTE 183.

Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the outpatient clinic, as well as increasing proficiency in general radiography.

Semester 5 – Spring

RTE 282 - Radiographic Internship V

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): RTE 281

Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the outpatient clinic, portable and trauma radiography, as well as increasing proficiency in general radiography.

RTE 289 - Capstone

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): All core curriculum or permission of instructor.

Corequisite(s): RTE 282.

Prepares the radiology technology student to effectively search for a job in radiography and sit for the American Registry of Radiologic Technologists examination.

Respiratory Therapy, AAS

Program Description

See list of Department Chairs on the Personnel page.

This program prepares you for a rewarding profession that will help treat patients of all age groups with heart and lung conditions. You will learn the diagnosis and management of diseases associated with cardiopulmonary illness. To be successful in this field you must have a high degree of maturity, strong drive, a solid science background, and excellent reasoning skills.

The Respiratory Therapy (RCA) program has a selective admissions process. The program application and requirements are available in the Health & Public Safety Office or at Pueblo Community College RCA from now—June 1. All Health & Public Safety programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

The RCA program prepares you for a career in respiratory therapy. Respiratory therapists work in a variety of settings: hospital, homecare, neonatal nursery, diagnostic testing, and flight for life. Respiratory care is one of fastest growing health professions in the U.S. We provide our graduates with a listing of national placement opportunities.

Total Credits: 72.5

General Education Requirements (20 Credits)

Applicants must have 6 of the 7 prerequisites completed at the time of application with a "C" or higher, before first fall program semester.

Fall (9 credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

Spring (11 credits)

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

OR

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum Requirements (52.5 Credits)

First Fall (10 credits)

RCA 105 - Introduction to Respiratory Care

Credit(s): 1

Lecture Hour(s): 1

Introduces the principles and practices of Respiratory Therapy, to include the study of: the profession's history, current and future roles of the respiratory therapist, working cohesively with other professional organizations, quality care and evidence-based practice, patient safety, effective communication with patients, patient health records, principles of infection control, and implications of legal and ethical practices.

RCA 131 - Basic Techniques in Respiratory Care

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Introduces the principles and practices of Respiratory Therapy; to include the study and application of infection control, conducting a patient centered interview, performing a cardiopulmonary physical assessment, identifying normal and abnormal structures on a thoracic radiograph, and the application of medical gases to the cardiopulmonary patient.

RCA 151 - Cardiopulmonary Anatomy and Physiology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Examines the cardiopulmonary anatomy and physiology related to respiratory therapy. This course also includes the study and analysis of the functional interrelationships between the pulmonary and cardiovascular systems.

RCA 156 - Application of Science in Respiratory Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

Applying the basic concepts of chemistry and physics in relation to the practices of Respiratory Therapy. Interpretation of laboratory data collected from an arterial and/or venous blood sample for identifying a patient's homeostasis with oxygenation and ventilation to maintain a normal acid-base balance. Applying an index of O₂ calculation to determine how gases are exchanged and transported from the atmosphere to the body for the assessment of the cardiopulmonary patient.

First Spring (13 credits)

RCA 132 - Basic Techniques in Respiratory Care II

Credit(s): 5

Lecture Hour(s): 3

Vocational Lab Hour(s): 3

Prerequisite(s): RCA 131, or consent of instructor.

Continues RCA 131 and focuses on airways, aerosol therapy, chest physiotherapy and positive pressure breathing.

RCA 153 - Cardiopulmonary Disease

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission.

Covers the pathological abnormalities and clinical manifestations associated with cardiopulmonary diseases. This course includes the study of patient assessment, treatment modalities, and management for both chronic and acute cardiopulmonary diseases.

RCA 166 - Monitoring and Diagnostics of the Cardiopulmonary Patient I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Provides the student an introduction to the monitoring and diagnostics for the cardiopulmonary patient, to include an analysis of the various clinical procedures, laboratory tests, and monitoring devices.

RCA 110 - Pharmacology of Respiratory Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department approval required

Introduces pharmacology associated with respiratory therapy, to include the study and application of prescribed medications for the indications, administration, adverse reactions and calculations; a study of specific topics include patient education of medication delivery devices, patient monitoring devices, utilization techniques, and the standards for therapeutic efficacy in relation to asthma, chronic obstructive pulmonary disease, and smoking cessation.

Summer (6.5 credits)

RCA 235 - Mechanical Ventilation I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required

Introduces the principles and practices of invasive and non-invasive mechanical ventilation, to include the study of respiratory failure and physiological effects of mechanical ventilation. This course covers the management of equipment for various types of mechanical ventilator systems.

RCA 270 - Clinical I

Credit(s): 4.5

Voc/Tech Clinic Hour(s): 13.5

Prerequisite(s): Department approval required.

Serves as the first patient care internship and focuses on the care and analysis of the noncritical patient. Includes procedures presented in RCA 131 and RCA 132.

Second Fall (11.5 credits)

RCA 271 - Clinical II

Credit(s): 7.5

Voc/Tech Clinic Hour(s): 22.5

Prerequisite(s): Department approval required.

Serves as the second patient care internship and focuses on the care and analysis of the critically ill patient. Rotations into specialty areas are carried out as the schedule permits.

RCA 236 - Mechanical Ventilation II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required. **Elaborates on the principles and practices of mechanical ventilation in high-risk situations, to include the study of ventilator graphics, management of patient asynchrony with ventilator support, and long-term mechanical ventilation.**

Elaborates on the principles and practices of mechanical ventilation in high-risk situations, to include the study of ventilator graphics, management of patient asynchrony with ventilator support, and long-term mechanical ventilation.

RCA 246 - Neonatal and Pediatric Respiratory Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Department approval required

Introduces the theory and principles of respiratory therapy unique to pediatric and neonatology. This course examines fetal development, prenatal and antenatal assessment, and high risk delivery. Including the analysis of anatomy and physiology, clinical assessment, therapeutic modalities, and cardiopulmonary disorders for neonatal and pediatric patients.

Second Spring (11.5 credits)

RCA 272 - Clinical III

Credit(s): 7.5

Voc/Tech Clinic Hour(s): 22.5

Prerequisite(s): Department approval required.

Offers the clinical practicum required for the program.

RCA 265 - Professional Development

Credit(s): 2

Lecture Hour(s): 2

Corequisite(s): RCA 283 or consent of instructor.

Reviews the respiratory therapy concepts, theory, and therapeutic applications covered within the program curriculum to prepare for the national credential examination, job placement, and state licensure requirements.

RCA 266 - Advanced Monitoring and Diagnostics of the Cardiopulmonary Patient II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Provides the student with an advanced opportunity for analysis and the monitoring and diagnosis of the cardiopulmonary patient, to include current medical diagnostic procedures, laboratory testing, and advance monitoring equipment.

Notes

¹ BIO 111 is a required prerequisite course for BIO 202

² Courses are required to be successfully completed or in progress during spring semester to apply to program

³ Courses must be completed within 5 years of entrance into the program

Software Development and Security AAS

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

This degree provides training so that graduates will be able to develop, create, and modify general computer applications software or specialized utility programs. They will be able to analyze user needs and develop software solutions.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming, and database technologies along with classes that teach the technical aspects of the internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section of this catalog.

Total Credits: 60

General Education Requirements (16 Credits)

Communications (3 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

General Education Electives (9 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CIS Core (15 Credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

Software Development and Security Core (29 Credits)

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CSC 241 - Advanced Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 240 or instructor approval.

Continues the study of the Java programming language. Covers advanced programming topics including

multithreading, network/Internet programming, database programming and JavaBeans. Enables the student to write advanced, large and complex programs.

CSC 246 - Mobile App Development

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 119.

Learn how to develop mobile apps using key features and frameworks. Students will learn application design and development using a mobile development platform software development kit (SDK) and corresponding programming language. Main features include: handling UI triggered and touch events, data management, simple and complex UI views, drawing, location and application settings.

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

CWB 205 - Client-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the client-side programming skills necessary to create dynamic web content using a markup embeddable and procedural scripting language executed on the client web browser.

Surgical Technology, AAS

CIP 51.0909

See list of Department Chairs on the Personnel page.

Surgical Technology Associate of Applied Science

Program Description

The Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

The Surgical Technology program teaches students classroom and hands-on learning in surgical techniques, patient prep, and Operating Room (O.R.) prep. Students will learn how to create and maintain a sterile field. They will also learn how to scrub, gown, glove, drape, and use case management. Students will be taught hemostasis, how to use sutures, needles, stapling devices, and how to handle specimens. In addition, students will learn pharmacology and anesthesia, wound care, and use the principles of infection control. How to handle sharps, pass instruments and supplies during procedures will also be taught. Training will include how to perform surgical counts, room turnover and terminal cleaning processes. You will also learn to properly process and sterilize instruments. Finally, students will engage in extensive clinical work to gain experience working with surgeons and staff in a real O.R.

The Surgical Technology (STE) program has a selective admissions process. The program application and requirements are available in the Nursing Division office or at Pueblo Community College STE from January 1 to May 15. All Nursing Division programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

BIO 106 Basic Anatomy and Physiology 4 credit class can be substituted with BIO 201 Human Anatomy and Physiology I, 4 credit course and BIO 202 Human Anatomy and Physiology II, 4 credit course if student has already successfully completed both of these classes. Students who have only completed BIO 201 may choose to take BIO 202 or BIO 106.

BIO 116 Introduction to Human Disease 3 credit course can be substituted with BIO 204 Microbiology 4 credit course.

Career Information.

A Surgical Technologist is a vital member of the operating room team and requires extensive commitment and special qualities for those who practice in this profession. A PCC Surgical Technology student will become prepared to immediately assume the wide range of entry-level responsibilities encompassed by the profession of Surgical Technology. Students will gain quality classroom and hands-on training for working in the field of Surgical Technology.

Total Credits: 63.5

Degree Requirements

First Fall - 15.5

STE 102 - Intro to Surgical Technology

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): Program Admittance

Introduces the principles and practices of surgical technology including standards of conduct, professional practice, communication, physical, psychological, social and spiritual needs of the surgical patient, death and dying, special populations, physical environment, safety standards, all-hazards preparedness, biomedical science, asepsis and sterile technique, hemostasis, emergency situations, surgical pharmacology and anesthesia, wound healing, sutures, needles, stapling devices and surgical instrumentation, equipment, and supplies. Perioperative technical skills of the surgical technologist will be demonstrated.

STE 103 - Introduction to Surgical Technology Lab

Credit(s): 4

Vocational Lab Hour(s): 8

Prerequisite(s): Program Admittance

Introduces hands-on skills in a mock operating room environment for the preoperative phase of surgical technology that includes scrubbing, gowning and gloving, assisting team members, creating and organizing a sterile field, setting up instrumentation on the mayo stand, surgical case management, operative routines, patient transport, patient positioning, prepping, and draping, as well as learning procedures for counting instruments, sponges, needles, sharps, and other items on the sterile field.

STE 133 - Surgical Instruments Lab I

Credit(s): 1.5

Vocational Lab Hour(s): 3

Prerequisite(s): Program admittance.

Introduces the history and materials used in the manufacture of surgical instruments, as well as the methods used to maintain, clean, and sterilize surgical instrumentation and equipment. Students will learn supplies, equipment, and the names, category, and use of instrumentation used in general, obstetric and gynecologic, otorhinolaryngology, oral, maxillofacial, plastic, reconstructive and ophthalmic surgical specialties. This course is the first of two courses.

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

First Spring - 14

STE 111 - Surgical Procedures and Case Management

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): STE 102

Identifies the anatomy, physiology, pathology, and terminology, as well as specific variations in the preoperative, intraoperative, and postoperative care related to general, obstetric, gynecologic, ophthalmic, otorhinolaryngologic, oral, maxillary, plastic and reconstructive, genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neuro surgery. Focus will also be placed on diagnostic procedures and tests, operating room set-up according to the surgical procedure, patient positioning, prepping, and draping, instrumentation, equipment, supplies and drugs, procedural steps, purpose and expected outcomes and possible complications.

STE 151 - Surgical Procedures & Case Management Lab

Credit(s): 4.5

Vocational Lab Hour(s): 9

Prerequisite(s): STE 102, STE 103, STE 133

Introduces surgical case management and the skills required for the surgical technologist to perform in the first and second scrub role in a simulated surgical environment, as it relates to general, obstetric, gynecologic, ophthalmic,

otorhinolaryngologic, oral, maxillofacial, plastic, genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neurologic surgical specialties.

STE 134 - Surgical Instruments Lab II

Credit(s): 1.5

Vocational Lab Hour(s): 3

Prerequisite(s): STE 102, STE 103

Introduces the history and materials used in the manufacture of surgical instruments, as well as the methods used to maintain, clean, and sterilize surgical instrumentation and equipment. Introduces supplies, equipment, and the names, category, and use of instrumentation used for genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neurologic surgical specialties.

STE 105 - Pharmacology for the Surgical Technologist

Credit(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Program admittance

Discuss relevant knowledge as it pertains to surgical pharmacology including the metric system, pharmacology theory, drugs and aspects of anesthesia.

Summer - 9

STE 281 - Surgical Technology Clinical Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 111, STE 112, STE 131, STE 141.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the first of three surgical technology clinical Internships.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

Second Fall - 13

STE 282 - Surgical Technology Clinical Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 281.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub,

and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the second of three surgical technology clinical Internships.

STE 279 - CST Exam Review Course

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): STE 281.

Prepares students for the National Certification Exam administered by The National Board for Surgical Technology and Surgical Assisting (NBSTSA) by introducing test taking skills and strategies for success. Students will review major concepts in the surgical technology program in preparation for the CST examination.

BIO 116 - Introduction to Human Disease: GT-SC2

Credit(s): 3

Lecture Hour(s): 3

Focused analysis of the causes and mechanics of human illness and death will be presented for each of the major human body systems. Selected diseases will be studied in greater detail including etiology, pathogenesis, epidemiology, sociology, and therapy.

COM 105 - Career Communication

Credit(s): 3

Lecture Hour(s): 3

Develops skills needed in obtaining and keeping a job. Includes job searching, applications, resumes, interviews, and the dynamics of customer, peer and managerial relationships. Emphasizes speaking, writing, listening, critical reading skills and vocabulary development essential to the employment world.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Second Spring - 12

STE 283 - Surgical Technology Clinical Internship III

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 282.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the third of three surgical technology clinical Internships.

STE 289 - Surgical Technology Capstone

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): STE 282, STE 279

Outlines the skills needed in obtaining and keeping a job. Students will learn how to develop a personal marketing plan, set short and long term goals, manage targeted job searches, fill out paper and electronic applications, write a cover letter and resume, and practice mock interviews especially tailored to surgical technology. Students will also continue reviewing major concepts in the surgical technology program in preparation for the CST examination and take a final practice exam.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

Web Design and Development, AAS

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with

emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 60

Degree Requirements

General Education Requirements (15 Credits)

Communications

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

OR

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

OR

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Gen Ed Elective

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

Social Behavioral Sciences

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Digital Media Requirements

MGD 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

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 business location and with the direct guidance of the instructor.

MGD 105 - Typography & Layout

Credit(s): 3

Vocational Lab Hour(s): 4.50

Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving and research. Provides experience producing thumbnails, roughs and digital layouts emphasizing refined creative typography.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CWB 209 - Web Content Management Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141

Explores the use of open source Content Management Systems (CMS) to simplify the creation and maintenance of web sites.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

MGD 268 - Business for Creatives

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121 or ENG 131

Presents a guide to freelance work and a study of business practices and procedures and models unique to creative occupations (graphic design, web design, animation, fine arts). Discussion includes determining charges, business forms, business planning, tax structure, licenses and registration, self-promotion (resume, website, portfolio, business identity package). Course may include visits by professionals in the field and discussion of career opportunities in a quickly changing career field.

MGD 289 - Capstone

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

A demonstrated culmination of learning within a given program of study.

MGD 242 - Web Architecture: Open Source Design

Credit(s): 3

Vocational Lab Hour(s): 4.50

Provides an overview of current open source tools used in the design industry for designing and implementing Web architecture. Course content changes with trends in the industry. Topics may include current content management platforms such as WordPress and Drupal, how to identifying web scripting languages, and an overview of open source programming such as PHP and MySQL.

CWB 206 - Server-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): MGD 141

Explores the creation of dynamic web pages and applications using server-side scripting with database interactivity, server-based scripting languages, and database manipulation languages.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

CWB 208 - Web Application Development: (Development Tool(s))

Credit(s): 3

Vocational Lab Hour(s): 4.5

Teaches students how to work in the server-side scripting environment. Students learn the basics of application development, and general principles that apply to most development environments. Students develop applications using two different server-side application development tools: PHP Hypertext Preprocessor (PHP), and Cold Fusion. Students also learn key application standards such as source and revision control, coding standards, code optimization and data integrity.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

MGD 227 - Marcomm Practices

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): JOU 105, or Department Chair Approval

Explores techniques and approaches in the practice of marketing communications (marcomm), including advertising, branding, direct marketing, packaging, promotion, publicity, sponsorship, public relations, sales, online marketing, social media marketing and more. Focuses on understanding the relationships between the different components of marketing communications to achieve maximum message effect.

Welding, AAS

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also

included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 64

Degree Requirements

General Education Requirements (15 Credits)

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

- Art/Humanities, **or** Social/Behavioral Science, **or** Communications, **or** Physical/Life Science **Credit(s): 8**

Core Curriculum Requirements (41 Credits)

WEL 100 - Safety for Welders

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of welding on health and safety.

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

or

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 125 - Introduction to Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124.

Covers welding in all positions and on various joint configurations using the GMAW (mig) welding process on carbon steel, stainless steel and aluminum. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 224 - Advanced Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers Gas Tungsten Arc Welding (GTAW) operations utilizing a variety of base metals and advanced joint designs.

WEL 225 - Advanced Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers welding in all positions on carbon steel plate with the GMAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 233 - 2G-Horizontal Pipe A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 104 or equivalent.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G horizontal position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Related Requirements (8 Credits)

Option A (Orman Campus)

WEL 251 - Design, Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102, WEL 124, WEL 250.

Develops advanced welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.

WEL 263 - Applied Metal Properties

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Introduces the study of metal properties, hardness testing, heat treatment, cold working microscopic examination and application of common commercial alloys in industry.

Option B (PCC Southwest Campus)

WEL 234 - 5G-Vertical Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 235 - 6G-45 Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 234.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

Associate of Science

[Click here for the Associate of Science Degree Requirements](#)

Biology, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science (AS) Degree with Designation in Biology prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science (BS) degree in Biology. Students who opt for the Bachelor of Science in Biology can choose to work in numerous occupational fields of science or medicine. Once a BS is completed, many students will pursue a higher or graduate degree in Biology.

Program Description

This program introduces the student to the discipline of Biology includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Biology. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Biology will be ready to complete the last half of a BS in Biology at a four-year institution.

Program Requirements

Refer to the course descriptions listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing Course (GT--CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell

structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Science Courses (20 Credits)

Note: If these credits are not required for the major at a receiving 4-year institution, they will be applied to the Bachelor's degree as elective credit toward graduation. Please check with the receiving institution to determine in which way these courses will be applied

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Electives (4 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.S. Biology, Cellular and Molecular Biology, Organismal Biology, and Wildlife Biology emphasis)
- Colorado Mesa University (B.S. Biological Sciences, Biology concentration)
- Colorado State University-Ft. Collins (B.S. Biological Sciences)
- Colorado State University-Pueblo (B.S. Biology)
- Fort Lewis College (B.S. Biology, General Biology option)
- Metropolitan State University of Denver (B.S. Biology)
- University of Colorado, Boulder (B.A. Ecology and Evolutionary Biology)
- University of Colorado, Colorado Springs (B.S. Biology)
- University of Colorado, Denver (B.S. Biology)
- University of Northern Colorado (B.S. Biological Sciences, Cell and Molecular Biology, Ecology and Evolutionary Biology, Pre-Health and Biomedical Sciences emphasis)
- Western State Colorado University (B.A. Biology, Cell Biology/Pre-medicine, Environmental Biology and Ecology, General Biology, Pre-allied Health emphasis)

Chemistry, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science (AS) Degree with Designation in Chemistry prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science (BS) degree in Chemistry. Students who opt for the Bachelor of Science in Chemistry can choose to work in numerous occupational fields of science or medicine. Once a BS is completed, many students will pursue a higher or graduate degree in Chemistry.

Program Description

This program introduces the student to the discipline of Chemistry includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Chemistry. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Chemistry will be ready to complete the last half of a BS in Chemistry at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (30 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

Arts and Humanities (3 Credits)

(See note below)

- Select one GT Pathways Arts and Humanities course from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (3 Credits)

(See note below)

- Select one GT Pathways Social and Behavioral course from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Science and Mathematics Courses (29 Credits)

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and

modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

CHE 211 - Organic Chemistry I with Lab

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of CHE 112 with a grade of "C" or better.

Focuses on compounds associated with the element carbon including structure and reactions of aliphatic hydrocarbons and selected functional group families. The course covers nomenclature of organic compounds, stereochemistry, reaction mechanisms such as SN1, SN2, E1 and E2. Laboratory experiments demonstrate the above concepts plus the laboratory techniques associated with organic chemistry.

CHE 212 - Organic Chemistry II with Lab

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of CHE 211 with a grade of "C" or better.

Explores the chemistry of carbon-based compounds, their reactions and synthesis including the structure, physical properties, reactivities, and synthesis of organic functional groups not covered in Organic Chemistry I. The course explores functional groups including alcohols, ethers, aromatics, aldehydes, ketones, amines, amides, esters, and carboxylic acids and the reactions and reaction mechanisms of aromatic compounds. An introduction to biochemical topics may be included if time permits. Laboratory experiences demonstrate the above concepts and the laboratory techniques associated with organic chemistry.

Elective (1 Credit)

Determined by transferring institution

Transfer Degrees

Note: This statewide transfer articulation agreement in Chemistry does not fulfill requirements for the GT Pathways general education curriculum or the Associate of Science degree prior to transfer; however, this agreement does guarantee a student, if admitted, junior standing and completion of the bachelor's degree within an additional 60 semester hours at the receiving institution.

Completion of the receiving institution's lower division general education requirements is fulfilled only under the condition that one GT Pathways-approved course in arts and humanities (AH1, AH2, AH3, or AH4) and one GT Pathways-approved course in social and behavioral sciences (SS1, SS2, or SS3) are successfully completed at the receiving institution within the first 30 hours or 12 calendar months.

Students transferring to a four-year college/university under this Chemistry agreement are encouraged to 'reverse' transfer the one GT Pathways course in arts and humanities and the one GT Pathways course in social and behavioral sciences back to PCC in order to complete the GT Pathways general education program and to earn their Associate of Science degree with a Chemistry designation.

Lecture and laboratory portions of organic chemistry, CHE 211 and CHE 212, must not be taken in an online delivery format.

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.S. Chemistry)
- Colorado Mesa University (B.S. Chemistry)
- Colorado State University-Ft. Collins (B.S. Chemistry)
- Colorado State University-Pueblo (B.S. Chemistry)
- Fort Lewis College (B.S. Chemistry, Chemistry option)
- Metropolitan State University of Denver (B.A./B.S. Chemistry)
- University of Colorado, Boulder (B.A. Chemistry)
- University of Colorado, Colorado Springs (B.A./B.S. Chemistry)
- University of Colorado, Denver (B.S. Chemistry)
- University of Northern Colorado (B.S. Chemistry, Biochemistry, Chemistry, Forensic Science, Industrial Chemistry, Pre-Health emphasis)
- Western State Colorado University (B.A. Chemistry, General Chemistry, Biochemistry emphasis)

Computer Science, (General AS degree with focus of study)

See list of Department Chairs on the Personnel page.

Total Credits: 60

General Education Course Requirements (36 credits)

Written and Oral Communication (6 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of

derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 credits)

- Choose a CCCS GT-SC1 (5 credits)
- Choose a CCCS GT-SC1 (5 credits)

Arts and Humanities (6 credits)

- Choose a CCCS GT-AH1, AH2, AH3, or AH4 (3 credits)
- Choose a CCCS GT-AH1, AH2, AH3, or AH4 (3 credits)

Social Sciences (6 credits)

- Choose a CCCS GT-SS1, SS2, SS3 (3 credits)
- Choose a CCCS GT-SS1, SS2, SS3 (3 credits)

History (3 credits)

- Choose a CCCS GT-HI1 (3 credits)

Select 24 Elective Credits from the Below (24 credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 230 - C Programming: Platform

Credit(s): 3

Lecture Hour(s): 3

Prepares students to be a better programmer using the C programming language. C is a mid-level language whose economy of expression and data manipulation features allows a programmer to deal with the computer at a low level. The goal is to learn skills that are usable in many languages and understand what is happening at the machine level. The student should already understand the control structures selection, iteration, and subroutines (functions/methods).

CSC 240 - Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Java programming language and covers basic graphics, events/procedures, user interface and libraries. Enables the student to write and execute a variety of Java programs. Incorporates Java Applets into HTML.

CSC 241 - Advanced Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 240 or instructor approval.

Continues the study of the Java programming language. Covers advanced programming topics including multithreading, network/Internet programming, database programming and JavaBeans. Enables the student to write advanced, large and complex programs.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic

geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 255 - Linear Algebra

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 201 with a grade of C or better.

Explores vector spaces, matrices, linear transformations, matrix representation, eigenvalues and eigenvectors.

Choose one CCCS GT-SC1 (4 credits)

Geology, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science (AS) Degree with Designation in Geology prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science (BS) degree in Geology or Earth Sciences. Students who opt for the Bachelor of Science in Geology can choose to work in various occupational fields of science or engineering. Once a BS is completed, many students will pursue a higher or graduate degree in Geology.

Program Description

This program introduces the student to the discipline of Geology includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Geology. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Geology will be ready to complete the last half of a BS in Geology at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Course (GT-CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Science and Mathematics Courses (23 Credits)

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Elective (1 Credit)

Determined by transferring institution

Transfer Degrees

Note: In addition to meeting the requirements listed here, contact the department at the school to which you want to transfer for program-specific information.

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.A./B.S. Earth Sciences, Geology emphasis)
- Colorado Mesa University (B.S. Geosciences, Geology concentration)
- Colorado State University-Ft. Collins (B.S. Geology, Geology concentration)
- Fort Lewis College (B.S. Geology, Geology option)
- University of Colorado, Boulder (B.A. Geology)
- University of Northern Colorado (B.S. Earth Sciences, Geology emphasis)
- Western State Colorado University (B.A. Geology, Geology emphasis)

Mathematics, AS (with Designation)

CIP 24.0199

Career Opportunities

The Associate of Science Degree with Designation in Mathematics prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a bachelor's degree in mathematics. Bachelor degree curriculums allow students to prepare for graduate school, teaching careers, or employment in areas that require mathematics, such as actuarial science, computer science, engineering or statistics.

Program Description

The Associate of Science Degree with Designation in Mathematics is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in mathematics. Completion of the AS degree completes the first two years of a mathematics bachelor's degree, and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in mathematics.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AS Degree with Designation in Mathematics, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Requirements (39 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

- Select three GT Pathway courses from any category: (GT-AH1, GT-AH2, GT-AH3, **or** GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathway courses from any category (GT-SS1, GT-SS2, or GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (16-17 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

or

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word

problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

Electives (4-5 Credits)

Determined by transferring institution

Transfer Degrees

** CSU-Fort Collins requires a different computer science course than the community college course. Students should seek advising at CSU-Ft. Collins for information on the appropriate computer science course to take.

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Mathematics)
- Colorado Mesa University (B.S. Mathematics; Mathematics, Secondary Education or Statistics concentrations)
- Colorado State University-Ft. Collins (B.S. Mathematics)
- Colorado State University-Pueblo (B.A. Mathematics; B.S. Mathematics)
- Fort Lewis College (B.A. Mathematics; Mathematics option)
- Metropolitan State University of Denver (B.A. Mathematics)
- University of Colorado, Boulder (B.A. Mathematics)
- University of Colorado, Colorado Springs (B.A. Mathematics; B.S. Mathematics)
- University of Colorado, Denver (B.S. Mathematics)
- University of Northern Colorado (B.S. Mathematics; Applied Mathematical Sciences or Liberal Arts emphasis)
- Western State Colorado University (B.A. Mathematics)

Pre-Engineering, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

Engineers apply mathematical principles and those of many sciences to the solution of practical design problems. Most engineers specialize in a particular area. There are more than 25 major specialties, including aerospace, chemical, mining and metallurgical, mechanical, architectural, electrical and systems. The Pueblo Community College curriculum provides a transferable foundation for all the major branches of engineering.

Program Description

The pre-engineering program at Pueblo Community College is designed for students interested in studying for the engineering profession through the community college pathway. This pathway prepares students for the completion of a two-year Associate of Science (AS) degree which meets the requirements of the statewide engineering articulation agreement with Colorado's four-year engineering bachelor's degree programs. Completion of the associate degree completes the first two years of an engineering bachelor's degree and guarantees transfer at the junior level.

Program Requirements

Refer to the general requirements for the Associate of Science degree listed above. Some pre-engineering courses have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for specific course prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (41 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

(Select three courses, with no more than two courses from any one category):

- Arts and Expression: Select from a GT Pathways Arts and Expression course (GT-AH1) *
- Literature and Humanities: Select from a GT Pathways Literature and Humanities course (GT-AH2) *
- Ways of Thinking: Select from a GT Pathways Ways of Thinking course (GT-AH3) *
- Foreign Languages: Select from a GT Pathways Foreign Languages course (GT-AH4) *

Social and Behavioral Sciences (6 Credits)

(Select two courses from two different categories):

- Economics or Political Systems: Select from a GT Pathways Economics or Political Systems course (GT-SS1) *
- Geography: Select from a GT Pathways Geography course (GT-SS2) *
- Human Behavior, Culture, or Social Frameworks: Select from a GT Pathways Human Behavior, Culture, or Social Frameworks course (GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Guided Electives (22 Credits)

see an academic advisor

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

CAD 101 - Computer Aided Drafting/2D I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on basic computer aided drafting skills using the AutoCAD software. Includes file management, Cartesian coordinate system & dynamic input, drawing templates, drawing aids, linetype and lineweights, layer usage, drawing & editing geometric objects, polylines & splines, array, text applications, creating tables, basic dimensioning and Help access.

EGG 102 - Introduction to Engineering Methodologies

Credit(s): 3

Lecture Hour(s): 2

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121

Focuses on a variety of functions and the exploration of their graphs. Topics include: equations and inequalities, operations on functions, exponential and logarithmic functions, linear and non-linear systems, and an introduction to conic sections. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

HWE 111 - Health and Fitness

Credit(s): 3

Lecture Hour(s): 3

Studies health and fitness in the US today. The course will look at personal health issues, managing stress, nutrition and health lifestyles.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Psychology, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science Degree with Designation in Psychology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science degree (BS) in psychology. Much of the coursework for BA and BS degrees in psychology tends to overlap (for example, social science requirements and core courses), but BS degree graduates have a higher skill concentration in math, natural sciences and research methods. Students who opt for the Bachelor of Science in Psychology can find work with medical doctors, forensic psychologists, neuropsychologists and biologists. After a BS is completed, students may pursue a higher degree in psychology, if interested.

Program Description

This program introduces the student to the field of psychology and includes the coursework to meet general education requirements that are common to all Colorado four-year institutions, as well as specific courses in various subfields of psychology. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Psychology will be ready to complete the last half of a BS in Psychology at a four-year institution.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AS degree with a designation in psychology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (38 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

- ENG 121 - English Composition I: GT-CO1 **Credit(s): 3**
or
- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

Arts and Humanities (9 Credits)

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

or

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

- (Plus six (6) additional credits from at least two different categories of GT Pathways Arts & Humanities courses: (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathway courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (9 Credits)

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Electives (13 Credits)

Determined by transferring institution

Transfer Degrees

Note: Students planning to transfer to University of Colorado Denver should complete both two-semester sequences of BIO 111 & BIO 112 and CHE 111 & CHE 112 at the community college; in addition, electives are restricted to non-Psychology courses.

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado State University-Fort Collins (B.S. Psychology: General Psychology concentration)
- Colorado State University-Pueblo (B.S. Psychology)
- University of Colorado, Denver (B.S. Psychology)

Associate of General Studies

[Click here for the Associate of General Studies Degree Requirements](#)

Criminal Justice, AGS (with Transfer Articulation Agreement)

CIP 24.0102

See list of Department Chairs on the Personnel page.

Career Opportunities

The criminal justice program prepares you to transfer as a junior to a four-year institution to pursue a Bachelor of Science degree in sociology or criminal Justice, after which you can pursue a career in federal, state and local adult correctional institutions, juvenile corrections and treatment facilities, law enforcement, forensics, private security and private investigations.

Program Description

The criminal justice program provides an in-depth analysis of the three components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathic awareness of cultural diversity.

Disclaimer

If you have any prior arrests and/or drug/alcohol history, you should discuss this history with a Criminal Justice advisor prior to beginning courses toward this degree. Neither PCC nor the Criminal Justice Department or advisors will be held liable for your decision to continue in pursuit of the degree if you have such a history. Many criminal justice employers will not hire students with a past history of arrests or convictions regardless of typology of offense.

Your entrance into any criminal justice course of study, or your subsequent graduation, is no guarantee, explicit or implied, that you are employable in the criminal justice field. Further, if you cannot be placed and/or remain in the course CRJ 280 - Cooperative Education/internship, after two good-faith attempts at placement, neither PCC nor its employees accept responsibility in respect to your inability to complete or meet fulfillment requirements of the degree.

Many criminal justice and related agencies require certain standards prospective employees must meet at the application stage. Job applications will ask if you have ever been arrested for any offense, either misdemeanor or felony. If you have, your prospective employer may deny your application. You may also be required to take psychological tests, lie detector tests, medical tests and physical fitness tests to determine if you are suited to a particular position.

Program Requirements

Entrance Requirements:

This is an open enrollment program.

Graduation Requirements:

A grade of "C" or higher is required in each course.

Total Credits: 60

General Education Core Requirements (39 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors.

Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

Select two courses:

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell

structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

Choose nine credits from two different disciplines.

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

HUM 121 - Humanities: Early Civilization: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the prehistoric to the early medieval era. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 122 - Humanities: Medieval - Modern: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the medieval to the early modern era. This is a statewide Guaranteed Transfer course in the GT-AH2 category. GT-AH2

HUM 123 - Humanities: Modern World: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and

understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 205 - Ethnic Literature: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Focuses on significant texts by ethnic Americans, including African-American, Native American, Latino/a and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 212 - American Literature After Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the mid-19th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 121 - Music History Medieval Thru Classical Period: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music from the Middle Ages into the Classical period, including styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 122 - Music History Early Romantic Period to the Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music connecting the classical period to the Romantic period and

following to the present. This course includes the study of styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

completion with a minimum C– grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 114 - Comparative Religions: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the major world religions from both the Eastern and Western world such as Hinduism, Buddhism, Confucianism, Taoism, Zoroastrianism, Judaism, Christianity, Islam, Bahá'í and influential preliterate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological) to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

SPA 211 - Spanish Language III: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 112 or Department Chair Approval.
Continues SPA 111 - Spanish Language I and SPA 112 - Spanish Language II in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish Language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

SPA 212 - Spanish Language IV: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 211 or Department Chair Approval.
Continues Spanish Language III in the development of increased functional proficiency at intermediate mid level in speaking, aural comprehension, reading, writing, and cultural competency in the Spanish language. This course is conducted predominantly in Spanish. This is a statewide Guaranteed Transfer course in the GT-AH4 category. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 211 - Development of Theatre Greek-Renaissance: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 212 - Development of Theatre Restoration to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

Social and Behavioral Sciences (9 Credits)

Select nine credits in at least two categories, one of which must be History:

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

GEO 106 - Human Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Introduces geographic perspectives and methods in the study of human societies by examining the spatial characteristics of populations, language, religion, ethnicity, politics, and economics. This course examines the relationships between physical environments and human societies. This is a statewide Guaranteed Transfer course in the GT-SS2 category. GT-SS2

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 247 - 20th Century World History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Investigates the major political, social and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

POS 105 - Introduction to Political Science: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and nondemocratic governments and processes, and international relations. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment,

personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 205 - Psychology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines gender comparisons in work, courtship, family life and sexual behavior throughout the lifespan. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 217 - Human Sexuality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Surveys physiological, psychological and psychosocial aspects of human sexuality. Topics include relationships, sexual identity and sexual health. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 238 - Child Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the growth and development of the individual from conception through childhood, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 205 - Sociology of Family Dynamics: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles. This course is one of statewide Guaranteed Transfer courses, GT-SS3.

SOC 215 - Contemporary Social Problems: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores current social issues that result in societal problems. It focuses on such issues as civil liberties, gender discrimination, substance abuse, crime, poverty and social change. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 216 - Sociology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Gives students the theoretical and factual background necessary to understand the phenomenon of gender stratification in American and other cultures. Students will be exposed to a history of gender stratification in human societies, theoretical explanations for this and insights into the consequences of gender differentiation in our world today. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

WST 200 - Introduction to Women's Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature and function of women in society from an interdisciplinary perspective, focusing on the similarity and diversity of women's experience over time and across cultures. The course will examine topics such as sex role, socialization, political and philosophical perspectives on women's issues, and women's accomplishments in history, art, literature, science, health issues and the family. Students will gain an awareness of the limitations of traditional scholarship on women and gain a means of practical application of the new scholarship on women's roles and nature. This course is one of the statewide Guaranteed Transfer Courses, GT-SS3.

Core Curriculum Requirements (21 Credits)

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 125 - Policing Systems

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): CRJ 110.

Examines policing in the United States, including historical foundations, emerging issues and the relationship between law enforcement and the community. The various types of law enforcement agencies, their administrative practices, and the behavior of those involved in the delivery of police services are examined from the perspective of democratic values, racial and ethnic diversity, and societal perceptions of police effectiveness. Career requirements, including current and future trends, are also presented.

CRJ 135 - Judicial Function

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Provides an overview of the structure and function of the dual American judicial system and the behavior of actors (judges/justices, lawyers, law clerks, interest groups, etc.) within the system. Emphasis is placed on the organization and administration of state and federal courts, criminal court procedures, juries, selection of judges, decision-making behavior of juries, judges and justices, and the implementation and impact of judicial policies.

CRJ 145 - Correctional Process

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Examines the history and total correctional process from law enforcement through the administration of justice, probation, prisons, correctional institutions and parole. Also examines the principles, theories, phenomena and problems of the crime, society and the criminal justice system from the perspective of criminology and the criminal justice system in general. Emphasizes the role of sociology and other interdisciplinary approaches to the field of corrections and society's response.

CRJ 205 - Principles of Criminal Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110, CRJ 125, CRJ 135, CRJ 145, and ENG 121.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 122.

Focuses on common law and statutory law crimes, the Model Penal Code, elements defining crimes and penalties, defenses to criminal accusations, and definitions and distinctions between criminal and civil law.

CRJ 210 - Constitutional Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 135.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Focuses on the powers of government as they are allocated and defined by the United States Constitution. The course includes intensive analysis of United States Supreme Court decisions.

CRJ 230 - Criminology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 145.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Provides an introduction to the study of crime, understanding the causes of crime, and examines, theoretical frameworks and theories to explain criminal behavior. Within a social context, consideration is given to how theories have emerged and understand how social context contributes to explanations of crime. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado State University Global (BS Criminal Justice and Law Enforcement Administration)
- Colorado State University, Pueblo (Sociology with a Criminology emphasis)

Exercise Science Health Promotion, AGS (with Transfer Articulation Agreement)

CIP 24.0102

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of General Studies (AGS) in Exercise Science Health Promotion is designed for students who want to transfer to CSU-Pueblo to pursue a bachelor's degree in the areas of Exercise Science, health promotion, recreation and athletic training. The Pueblo Community College curriculum provides a transferable foundation for all Exercise Science Health Promotion majors. Exercise Science Health Promotion is the science and art of helping people evaluate their lifestyle to move toward a state of optimal health. We define optimal health as a balance of physical, emotional, career, social, spiritual and intellectual health. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, change behavior, and create environments that support health practices. Giving Pueblo Community College students the opportunity to earn a two-year degree in health promotion will prepare them for a transfer degree to CSU-Pueblo and careers in a wide variety of allied health fields.

Program Description

The Exercise Science Health Promotion program at Pueblo Community College is designed for students interested in studying for the Exercise Science Health Promotion professions through the community college pathway. This pathway prepares students for the completion of a two-year Associate of General Studies (AGS) degree which meets the requirements of bachelor's degree in Exercise Science Health Promotion at CSU-Pueblo. Completion of the associate degree completes the first two years of the Exercise Science Health Promotion bachelor's degree and guarantees transfer at the junior level.

Program Requirements

Entrance requirements: Refer to the general requirements for the Associate of Science degree. Refer to the course descriptions for specific course prerequisites.

Total Credits: 60

* May require additional electives to meet total degree credits

* *Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (41 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Oral Communication (3 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (13 Credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular,

nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

Social and Behavioral Sciences (6 Credits)

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Arts and Humanities (6 Credits)

- Select two GTPathway GT-AH1, GT-AH2, or GT-AH3 courses *

Core Curriculum (15 Credits)

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro

nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

HPR 100 - Introduction to Health

Credit(s): 3

Lecture Hour(s): 3

Provides an exploratory course for students interested in a health career. Basic health skills such as vital signs and CPR will be included.

or

RCA 105 - Introduction to Respiratory Care

Credit(s): 1

Lecture Hour(s): 1

Introduces the principles and practices of Respiratory Therapy, to include the study of: the profession's history, current and future roles of the respiratory therapist, working cohesively with other professional organizations, quality care and evidence-based practice, patient safety, effective communication with patients, patient health records, principles of infection control, and implications of legal and ethical practices.

or

PTA 115 - Principles and Practices of Physical Therapy

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission or department chair approval.

Explores the history of the profession including definition, development and areas of practice. The role of the APTA, the physical therapist assistant and the relationship between the physical therapist, PTA and other health care professionals are investigated. Includes current issues and trends including professionalism, ethics, quality assurance, communications and reimbursement issues such as Medicare, Medicaid, workers' compensation and commercial insurance.

or

RTE 101 - Introduction to Radiography

Credit(s): 2

Lecture Hour(s): 2

Introduces radiology including equipment, exposure, positioning and the knowledge necessary for the radiography student to provide safe patient care including communication skills, body mechanics, patient transfer, and radiography as a profession.

or

OTA 100 - Introduction to Occupational Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission

Explores career options in occupational therapy through discussion, observation and participation. Identifies the need for areas of occupation and the differences between health, illness and wellness. Describes the history and philosophy of occupational therapy and the roles, responsibilities and relationships between other healthcare professionals. Discusses ethical and legal implications of health care and explores basic sociological issues.

HWE 103 - Community First Aid and CPR

Credit(s): 1

Lecture Hour(s): 1

Prepares the student for certification in CPR and Basic First Aid. Skills will include basic life support, airway obstruction, control of bleeding, shock and patient care for the unconscious.

HWE 111 - Health and Fitness

Credit(s): 3

Lecture Hour(s): 3

Studies health and fitness in the US today. The course will look at personal health issues, managing stress, nutrition and health lifestyles.

PSY 229 - Introduction to Addictive Behavior

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): ENG 121.

Focuses on addictive behavior and its effect on individuals, families and society.

Electives (4 Credits)

- Choose any PED courses from the catalog

Hospitality Studies, AGS (with Transfer Articulation Agreement)

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares students for a career in the growing hospitality industry. A Certificate in Hospitality Sales and Marketing will provide the tools necessary for entry-level positions in event planning, tourism and hospitality sales and marketing; the AGS degree with emphasis in Hospitality Sales and Marketing.

Program Description

The Hospitality Studies program focuses on teaching professionalism and work ethic for the hospitality industry. There is an emphasis on leadership, customer service, event planning, bartending and dining-room management throughout the program. Skills taught in the Hospitality Sales and Marketing track include sales, negotiations and marketing.

The Certificate in Hospitality Sales and Marketing is 30 credits and can be completed in two semesters. Courses in the Certificate can be used for the AGS degree. Students planning on pursuing a four-year degree in Hospitality should speak with an advisor regarding transferability of courses.

This program includes Learning Lab requirements. This is time scheduled outside of class where students perform specific tasks aligned to course learning outcomes in a professional environment. Students will graduate with industry-relevant work experience acquired at PCC. The Learning Labs program is unique to PCC and gives students the opportunity to practice work ethic and professionalism.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (7 Credits)

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

Social and Behavioral Sciences (9 Credits)

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

- GEO 105 - World Regional Geography: GT-SS2 **Credit(s): 3**

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

Art and Humanities (6 Credits)

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

ETH 224 - Introduction to Chicano Studies

Credit(s): 3

Lecture Hour(s): 3

Introduces students to skills development in multicultural education. Covers Chicano history, migration and labor, education, law and Chicano culture.

Core Curriculum Requirements (26 Credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

MAR 160 - Customer Service

Credit(s): 3

Lecture Hour(s): 3

Enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Metropolitan State University

Mass Communications, AGS (with Transfer Articulation Agreement)

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of General Studies degree with an emphasis in Mass Communications prepares you for a career in journalism, radio/TV broadcasting, advertising, public relations or New Media Technology by providing a two-year foundation of courses designed to transfer to four-year colleges and universities.

Program Description

This program teaches you to think critically and develops your skills in news writing, television and radio production, advertising, videography and web design. Courses provide a solid foundation in these areas through a mixture of lecture and hands-on application. A fully equipped video control room and a mobile production truck provide you with multi-camera working classrooms. Several nonlinear editing suites offer you a diversity of experience in the changing field of communication. You will also gain experience in production and digital media through our media lab and the many volunteer opportunities we offer.

Transferability of courses depends upon the courses taken and the receiving institution. The PCC/CSU-Pueblo Transfer Agreement allows the AGS Media Communications graduate to transfer to the Colorado State University-Pueblo Mass Communications Department with a junior standing.

Please see the certificate option - Broadcasting & Production Technology Certificate.

Total Credits: 60

General Education Requirements (35 Credits)

Should be GTPathway courses

Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

Physical & Life Sciences (Courses with Required Labs) (8 Credits)

Select two courses from:

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and

quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

ENV 101 - Environmental Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources, pollution and environmental protection. Using a holistic approach, students will study how the foundations of natural sciences interconnect with the environment. This course includes laboratory experience.

GEO 111 - Physical Geography: Landforms with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces students to the principles of Earth's physical processes, emphasizing landforms, soils and hydrology. Examines the formation and distribution of landforms, such as mountains, valleys and deserts, and their shaping by fluvial and other processes. The course incorporates an integrated process of lectures, discussion and laboratory assignments.

GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the principles of meteorology, climatology, world vegetation patterns and world regional climate classification. The course includes investigating the geographic factors which influence climate, such as topography, location, elevation, winds and latitude.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

GEY 135 - Environmental Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Introduces the subject of geology as it relates to human activities. Geologic hazards such as floods, landslides, earthquakes, and volcanoes are investigated. Mineral, energy, soil, and water resources are discussed in terms of their

geologic formation and identification, usage by society, and associated environmental impacts. Land use issues, waste, and pollution are also examined.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 107 - Energy Science & Technology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Explores the science of energy and energy technologies, with a focus on renewable energy resources and clean technologies. It provides a background in the physics of energy, energy transfer and the current state of technology. Students will evaluate the future utilization of renewable technologies. Activities may include investigating conservation of energy, mechanical, electrical, heat and fluid power systems; energy transfer and loss; understanding energy audits; testing solar collectors and wind generators; and investigating hydrogen fuel cells. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

Select three courses from any one category:

Arts and Expression

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 121 - Music History Medieval Thru Classical Period: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music from the Middle Ages into the Classical period, including styles,

genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 122 - Music History Early Romantic Period to the Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music connecting the classical period to the Romantic period and following to the present. This course includes the study of styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 125 - History of Jazz: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of jazz history covering the basic materials of music and the forms, media, genres, and the historical and cultural framework of each style period. This course emphasizes the building of critical listening tools and the development of a jazz music vocabulary. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 211 - Development of Theatre Greek-Renaissance: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 212 - Development of Theatre Restoration to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 215 - Playwriting: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Gives students the opportunity to learn and practice playwriting techniques, thereby improving creative writing skills.

Elements of dramatic structure, dialogue, styles and theatrical practices are emphasized. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

Literature and Humanities

HUM 103 - Introduction to Film Art: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Studies the relationships among film's stylistic systems, narrative systems and audience reception. Students view, discuss and critically analyze a variety of films which represent a variety of genres and themes. The course incorporates the vocabulary of stylistic systems (for instance, cinematography and editing) and narrative systems (for instance, story structure and character motivation) as both relate to the kinds of meanings a film conveys. This course is approved as part of the Colorado Statewide Guaranteed transfer curriculum: GT:AH2.

HUM 115 - World Mythology: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces students to a multidisciplinary approach to world mythology. Common themes are illustrated and connected to religion, philosophy, art, literature, music and contemporary culture. In addition, students will study various ways of interpreting myth. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 121 - Humanities: Early Civilization: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the prehistoric to the early medieval era. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 122 - Humanities: Medieval - Modern: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the medieval to the early modern era. This is a statewide Guaranteed Transfer course in the GT-AH2 category. GT-AH2

HUM 123 - Humanities: Modern World: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 205 - Ethnic Literature: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Focuses on significant texts by ethnic Americans, including African-American, Native American, Latino/a and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 212 - American Literature After Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the mid-19th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 225 - Introduction to Shakespeare: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 246 - Literature of Women: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the techniques and themes in literature by and about women by examining women's issues from various genres. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

Ways of Thinking

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 114 - Comparative Religions: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the major world religions from both the Eastern and Western world such as Hinduism, Buddhism, Confucianism, Taoism, Zoroastrianism, Judaism, Christianity, Islam, Bahá'í and influential preliterate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological) to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 115 - World Religions-West: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to religions of the Western world: Zoroastrianism, Judaism, Christianity, Islam, Bahá'í, and influential pre-literate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological), to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets, and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 218 - Environmental Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Critically analyzes theories of value of the natural world. Topics include the relation between scientific and moral principles; theories of the moral worth of persons, animals, plants and other natural objects; historical, religious and cultural influences on conceptions of nature; alternative accounts of human relationships and responsibilities to nature, including deep ecology and eco-feminism; and the connection between moral and political values and economic policies. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 220 - Philosophy of-Death and Dying: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Explores the major philosophical questions surrounding death and dying: the metaphysical arguments for and against the existence of a soul and life after bodily death; the epistemological assessment of arguments for the soul and life after death; the ethical justifications taken on positions such as rational suicide and physician assisted suicide, as well as a focus on philosophy's existentialist contribution to questions about the meaning of life and the meaning of death. This course is one of the statewide Guaranteed Transfer courses. GT-AH3.

Foreign Languages

SPA 211 - Spanish Language III: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 112 or Department Chair Approval.

Continues SPA 111 - Spanish Language I and SPA 112 - Spanish Language II in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish Language. Note: The order of the topics

and the methodology will vary according to individual texts and instructors. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

SPA 212 - Spanish Language IV: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 211 or Department Chair Approval.

Continues Spanish Language III in the development of increased functional proficiency at intermediate mid level in speaking, aural comprehension, reading, writing, and cultural competency in the Spanish language. This course is conducted predominantly in Spanish. This is a statewide Guaranteed Transfer course in the GT-AH4 category. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

Social and Behavioral Science (9 Credits)

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Select Three Courses in at Least Two Categories

History

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense.

Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 225 - Colorado History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Presents the story of the people, society and cultures of Colorado from its earliest Native Americans through the Spanish influx, the explorers, the fur traders and mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists and the modern state. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 247 - 20th Century World History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Investigates the major political, social and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Economic or Political Systems

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

ECO 245 - Environmental Economics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Introduces contemporary environmental issues and policies meant to reduce environmental degradation. It introduces the concept of market failure due to pollution. The course covers government pollution reduction policies for air, water, and natural environments. It also covers analytical tools that are used to analyze the effectiveness of these policies. This is a statewide Guaranteed Transfer course in the GT-SS1 category. GT-SS1

POS 105 - Introduction to Political Science: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and nondemocratic governments and processes, and international relations. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 125 - American State and Local Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the structure and function of state, county and municipal governments, including their relations with each other and with national government. Includes a study of Colorado government and politics. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

Geography

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

GEO 106 - Human Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Introduces geographic perspectives and methods in the study of human societies by examining the spatial characteristics of populations, language, religion, ethnicity, politics, and economics. This course examines the relationships between physical environments and human societies. This is a statewide Guaranteed Transfer course in the GT-SS2 category. GT-SS2

Human Behavior, Culture, or Social Frameworks

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 107 - Introduction to Archaeology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. The course provides a survey of the archaeology of different areas of the Old and New Worlds, the works of selected archaeologists, and major archaeological theories. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race,

verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

ETH 200 - Introduction to Ethnic Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the issues of race and ethnicity. Emphasizes ethnic relations in the United States as it pertains to four major groups – Americans of African, Asian, Latino and Native descent. Explores issues of racial and ethnic identity, racism and discrimination, stereotyping, prejudice, segregation, colonialism, integration and acculturation.

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 205 - Psychology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines gender comparisons in work, courtship, family life and sexual behavior throughout the lifespan. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 217 - Human Sexuality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Surveys physiological, psychological and psychosocial aspects of human sexuality. Topics include relationships, sexual identity and sexual health. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 231 - Positive Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

explore strengths-based research, concepts of happiness, helpfulness and resiliency. The research and theories about human nature will go beyond simply not being mentally ill as a form of mental health, which will include optimism, post-traumatic growth, and how to increase emotional, psychological and social functioning. Overall, this course will be focused on understanding one's own sense of life satisfaction and how to further improve well-being. This course is approved as part of the Colorado statewide Guaranteed transfer curriculum: GT: SS3.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 238 - Child Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the growth and development of the individual from conception through childhood, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 240 - Health Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the scientific study of attitudes, behaviors, and personality variables related to health, illness, and bodily systems. The course emphasizes the interaction of biological, psychological, and social factors that cause illness and influence its treatment and prevention. This is a statewide Guaranteed Transfer course in the GT-SS3 category. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 265 - Psychology of Personality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Investigates the major contemporary theories of personality. Covers psychodynamic, behavioral, cognitive-social learning, humanistic, trait and, optionally, neurobiological, existential and/or Eastern perspectives. The underlying assumptions and research support for these theories are appraised. Enables the student to gain an appreciation of the value of alternative theoretical approaches to this subfield of psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 205 - Sociology of Family Dynamics: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles. This course is one of statewide Guaranteed Transfer courses, GT-SS3.

SOC 207 - Environmental Sociology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examination of humans and the environment from an ecological perspective. Focuses on industrial and economic growth versus sustainability, natural resources development and management, environmental values and social movements, and comparative perspectives on people's relationship to the environment. Review of the Green movement and other environmental movements and their impacts upon social dynamics, the environment and the evolution of social movements.

SOC 215 - Contemporary Social Problems: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores current social issues that result in societal problems. It focuses on such issues as civil liberties, gender discrimination, substance abuse, crime, poverty and social change. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 216 - Sociology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Gives students the theoretical and factual background necessary to understand the phenomenon of gender stratification in American and other cultures. Students will be exposed to a history of gender stratification in human societies, theoretical explanations for this and insights into the consequences of gender differentiation in our world today. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 218 - Sociology of Diversity: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores the variety of intergroup relations regarding race, nationality, ethnicity, gender, sexual orientation and other diversity issues. Patterns of prejudice, discrimination and possible solutions to these issues will be addressed. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 237 - Sociology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides an opportunity to familiarize students and professionals with the needs and issues surrounding dying and death. This course will provide sociological, psychological, religious, historical and anthropological perspectives for interpreting contemporary American customs dealing with dying, death and bereavement. We will examine the professions associated with death and dying, such as hospice, funeral and crematory institutions, and medical care. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

WST 200 - Introduction to Women's Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature and function of women in society from an interdisciplinary perspective, focusing on the similarity and diversity of women's experience over time and across cultures. The course will examine topics such as sex role, socialization, political and philosophical perspectives on women's issues, and women's accomplishments in history, art, literature, science, health issues and the family. Students will gain an awareness of the limitations of traditional scholarship on women and gain a means of practical application of the new scholarship on women's roles and nature. This course is one of the statewide Guaranteed Transfer Courses, GT-SS3.

Core Curriculum Requirements (25 Credits)

JOU 206 - Intermediate Newswriting and Editing

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): JOU 105, ENG 121, or Department Chair Approval

Presents how to gather information as an investigative reporter through research of local, state and federal government publications, how to cover police beat and city hall, how our courts and regulatory agencies function, and how to cover other challenges such as the environment, religion, science, medical, public safety and business.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 289 - Capstone

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

A demonstrated culmination of learning within a given program of study.

RTV 100 - Introduction to Electronic Media

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the market demands involving national, local and international uses of electronic media.

Choose 15 credits below

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 114 - Adobe Indesign

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces students 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.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

RTV 102 - Beginning Television

Credit(s): 3

Vocational Lab Hour(s): 4.5

Focuses on principles and techniques of television production in theory and the approach of studio and production.

Emphasizes producing television programs, beginning with a concept through script to actual studio production, pre-production and post-production.

Bachelor Applied Science

[Click here for the Bachelor Applied Science Degree Requirements](#)

Advanced Paramedic Practitioner BAS

Program Description

See list of Department Chairs on the Personnel page.

PCC's Advanced Paramedic Practitioner Bachelor of Applied Science is designed for certified paramedics who have completed an Associate Degree in Emergency Medical Services or Paramedicine from an accredited college and wish to continue their education and obtain a Bachelor of Applied Science degree.

This program provides a student centered on-line learning environment meant to enhance career opportunities. Students will engage in self-directed learning activities and gain specialized knowledge in critical care, community and behavioral paramedicine.

Career Information

The Advanced Paramedic Practitioner degree opportunities may include working as a critical care paramedic, a community paramedic and in behavioral health in a variety of settings including mental health facilities, drug rehab, hospitals, clinics and in community paramedic programs.

The Advanced Paramedic Practitioner BAS program admission requirements and application are posted on Pueblo Community College EMS BAS webpage.

Total Program Credits -- 120

Students will receive 65 credits from AAS degree and earn 55 BAS credits. All program students must have a minimum of 30 PCC institutional credits.

Students may apply to start the program any semester.

First (16 credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

HPR 301 - Communications in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Develops professional written and oral communication plans to ensure effective patient-centered outcomes between health care professionals, patients and caregivers.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

OR

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

Second (12 credits)

HPR 403 - Critical Review of Healthcare Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Teaches how to evaluate and analyze published literature using a scientific approach to develop medical best practices, formulates and research clinical questions to effectively participate in medical discussions.

EMS 312 - Trauma Informed Care and Assessment

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program
SOC 231

Provides an overview of trauma-informed approaches, covering the types of trauma experienced, the impact of trauma on individuals, and principles of trauma-informed care.

EMS 311 - Motivational Interviewing and De-escalation Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s):

Admission to the Advanced Paramedic Practitioner BAS program

SOC 231

Introduces the Motivational Interviewing (MI) concept as a client-centered and conversational method of communication designed to assist helping professionals address clients' ambivalence to change. The course will also introduce de-escalation techniques aimed at calmly communicating with an agitated client in order to understand, manage, and resolve their concerns.

EMS 310 - Clinical Assessment in the Behavior Setting

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces several assessment tools and techniques to utilize when assessing a client in a behavioral setting.

Third (14 credits)

HPR 310 - Quality Improvement in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Introduces approaches to assessing risk and improving health care quality through the practice of Continuous Quality Improvement (CQI). Course explores the conceptual framework for quality improvement, a focus on quality improvement as a strategy to manage cost, boost productivity, and enhance quality outcomes in various health care settings. The course will focus on both conceptual understanding and experiential learning.

EMS 425 - Fundamentals of Advanced Paramedic Practice

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program
Presents advanced techniques for patient assessment and management. The course covers analysis of lab values associated with electrolytes, pharmacokinetics, and pulmonary gasses as they pertain to the pathophysiology of disease and patient management.

EMS 433 - Advanced Paramedic Medical Care

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program
Provides advanced knowledge on assessing and managing patients with acute medical conditions and chronic medical conditions that have progressed in severity. This course focuses on in-depth pathophysiology of disease, advanced assessment, pharmacologic, and management required for patient care.

EMS 435 - Advanced Paramedic Trauma Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program
Provides students with the advanced knowledge required to assess and manage patients with acute medical conditions and chronic medical conditions that have progressed in severity. In-depth pathophysiology of disease will be presented in conjunction with the advanced assessment, pharmacologic and management knowledge required to care for patients.

Fourth (13 credits)

EMS 330 - Community Advocacy and Outreach

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program
Introduces the role and function of the Community Paramedic (CP). The course provides insight into Community Paramedic's specific role and function as a member of a health care team and part of a community. The course identifies the components of the role, defines the role, and explains "scope of service" for the position of CP. The role of the CP as an advocate for clients in the community is discussed.

EMS 331 - Community Assessment

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program
Introduces students to the role of the Community Paramedic (CP) as a member of the health care team in community assessment. The course presents concepts related to mapping community health care services, describing the demographics of the community, and assessing their impact on the health of the potential patients. The course will provide an understanding of community health services in order to understand the health care needs in the community.

EMS 430 - Care and Prevention Development Strategies

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces the responsibilities of the Community Paramedic (CP) for gathering appropriate patient/client information and maintaining accurate records, including documentation of encounters between the CP and the patient/client. The course presents information about the CP's role in assessing health care needs and appraising health care conditions.

EMS 489 - Capstone

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Provides students opportunity in a clinical setting for gathering and reviewing patient history, developing a care plan, providing appropriate treatment or counseling to the patient, and determining appropriate patient disposition.

¹ Courses taught in the first 8 weeks of the semester

² Courses taught in the second 8 weeks of the semester

Total Credits: 55

Computed Tomography, BAS

CIP 51.0911

See list of Department Chairs on the Personnel page.

Career Opportunities

The BAS in Radiologic Technology program prepares students for careers in Computed Tomography (CT) or Magnetic Resonance Imaging (MRI), Leadership and Teaching in Medical Imaging.

Program Description

The BAS in Radiologic Technology program teaches students to perform Computed Tomography (CT) exams or Magnetic Resonance Imaging (MRI) exams as well as how to lead or teach others in the Medical Imaging Department. It provides students with an additional imaging modality and prepares them to take on leadership roles in the imaging department in health care facilities.

Program Requirements

Entrance Requirements:

Applicants must hold an associate's degree and be a registered radiologic technologist with the American Registry of Radiologic Technologists (ARRT).

Graduation Requirements:

Must complete 120 credits including didactic and clinical components of the program.

Total Credits: 43

Curriculum Requirements (43 Credits)

First Year-Fall Semester

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

First Year-Spring Semester

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

RTE 341 - Theory and Application of CT Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental and advanced principles of Computed Tomography (CT) in order to perform clinical CT examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

RTE 351 - CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Covers the skill and knowledge necessary to perform supplemental procedures for imaging various anatomical structures including the head, spine, chest, abdomen, pelvis and extremities utilizing Computed Tomography. It provides instruction on gross pathological conditions demonstrated on CT images.

Summer Semester

RTE 382 - Internship: CT I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in Computed Tomography exams. The Internship allows the student to gain clinical experience and develop proficiency in CT.

RTE 451 - Advanced CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 351.

Provides the skill and knowledge necessary to perform advanced specialty procedures for imaging various anatomical structures utilizing Computed Tomography. It distinguishes vascular anatomy and incorporates contrast media injections and contraindication into complex imaging studies.

Second Year-Fall Semester

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

RTE 461 - Leadership in Medical Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Examines concepts and skills needed for leadership roles in Medical Imaging. It prepares the student with communication, time management, supervision, task delegation, conflict management and performance assessment skills.

or

RTE 462 - Teaching Methodologies in Medical Imaging Education

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Provides a general overview of the concepts and theory of Medical Imaging education. It introduces current theories of teaching adult learners in the Imaging Sciences, objective development of active learning activities, classroom assessment techniques and delivering course content through distance-learning formats.

RTE 482 - Internship: CT II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 382.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in CT.

Dental Hygiene, BAS

CIP 51.0602

See list of Department Chairs on the Personnel page.

Career Opportunities

This program prepares the licensed dental hygienist to academically expand their knowledge and career opportunities in the professions of education, program administration, public health, research or sales.

Program Description

This Bachelor of Applied Science Degree Completion Program is designed for licensed dental hygienists who have completed an associate degree from a regionally accredited institution that is also accredited by the Commission on Dental Accreditation. The goal of the Registered Dental Hygienist (RDH) to BASDH program is to work with each student to enhance knowledge and provide expanded career opportunities. Obtaining a BAS degree may also provide the lifelong learner the knowledge base to prepare them academically should they wish to pursue a master's degree for additional career opportunities.

Program Requirements

Entrance Requirements:

Students must complete a current Dental Hygiene BAS program application and meet all minimum program requirements and application timelines. The application is available on the Dental Hygiene BAS website. Applicants should also seek advisement from the program director for assistance with meeting all admission requirements. In addition, students must meet the following admissions requirements:

1. Graduate from a regionally accredited dental hygiene program that is also accredited by the Commission on Dental Accreditation.
2. Pass the National Board Dental Hygiene Exam.
3. Hold a current dental hygiene license in a US state.

Total Credits: 27

General Education Requirements (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Curriculum Requirements (24 Credits)

First Fall Semester

HPR 403 - Critical Review of Healthcare Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Teaches how to evaluate and analyze published literature using a scientific approach to develop medical best practices, formulates and research clinical questions to effectively participate in medical discussions.

DEH 301 - Advanced Careers in Dental Hygiene

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

Provides an overview of the career options available to the dental hygienist with an advanced degree. In depth analysis of alternative careers to include: public health systems, dental hygiene education, research, sales and marketing, oral health policy and oral health care delivery systems.

First Spring Semester

DEH 455 - Topics in Dental Public Health

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the program.

Provides a comprehensive overview in public health as it relates to the field of dentistry. Surveys and analyzes oral health services, community programs, disease prevention, policy, ethics and issues facing the profession today.

DEH 341 - Clinical Teaching Methodologies

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

This course provides students the opportunity to compare and contrast practical experience as it relates to dental hygiene clinical instruction. Students will apply teaching methodologies, psychomotor learning theories, feedback techniques and motivational strategies to direct student learning.

Second Fall Semester

DEH 355 - Social and Behavioral Determinants of Oral Health

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission into the program.

Evaluate the complexity and interplay of social and physical environmental structures, economic systems and behavioral patterns that affect overall health with a focus on health services, health beliefs and their impact on health-related behavior choices.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

Second Spring Semester

DEH 489 - Capstone: Dental Hygiene

Credit(s): 5

Seminar Hour(s): 5

Prerequisite(s): MAT 135 and admission to the program.

Provides the student an opportunity to participate in a cumulative learning experience that integrates theory and applies previously learned knowledge and skill. The student will design, implement and evaluate a project related to their specific area of interest.

Electives if Needed for Institutional Credit

- Any 300 or 400 level HPR BAS course

Miscellaneous Information

¹ Course taught in the first eight weeks of the semester

² Course taught in the second eight weeks of the semester

Magnetic Resonance Imaging, BAS

CIP 51.0911

See list of Department Chairs on the Personnel page.

Career Opportunities

The BAS in Radiologic Technology program prepares students for careers in Computed Tomography (CT) or Magnetic Resonance Imaging (MRI), Leadership and Teaching in Medical Imaging.

Program Description

The BAS in Radiologic Technology program teaches students to perform Computed Tomography (CT) exams or Magnetic Resonance Imaging (MRI) exams as well as how to lead or teach others in the Medical Imaging Department. It provides students with an additional imaging modality and prepares them to take on leadership roles in the imaging department in health care facilities.

Program Requirements

Entrance Requirements:

Applicants must hold an associate's degree and be a registered radiologic technologist with the American Registry of Radiologic Technologists (ARRT).

Graduation Requirements:

Must complete 120 credits including didactic and clinical components of the program.

Total Credits: 43

Curriculum Requirements (43 Credits)

First Year-Fall Semester

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

First Year-Spring Semester

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

RTE 321 - Theory and Application of MR Imaging I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental principles of MRI in order to perform clinical MRI examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

Summer Semester

RTE 331 - MRI Protocols and Procedures

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Develops the knowledge necessary to perform procedures for imaging various anatomical structures utilizing MRI. It provides instruction on routine parameter selection, patient positioning, coil selection and application and anatomy and pathologies demonstrated on MR images.

RTE 381 - Internship: MRI I

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in MR imaging exams. The Internship allows the student to gain clinical experience and develop proficiency in MRI.

Second Year-Fall Semester

RTE 421 - Theory and Application of MR Imaging II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 321.

Examines in-depth knowledge of designing MRI pulse sequences, data manipulation, artifacts and quality control and quality assurance procedures. Special consideration will be given to methods to shorten scan time, k-space filling and reconstruction, Fast Fourier Transform and image transfer and storage systems used in healthcare facilities.

RTE 431 - Advanced MRI Protocols and Procedures

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): RTE 331.

Examines specialized advancements in MRI. Emphasis will be placed on the heart and vasculature, functional imaging, contrast agents and their uses, enterography, pelvic run-off and breast imaging.

RTE 461 - Leadership in Medical Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Examines concepts and skills needed for leadership roles in Medical Imaging. It prepares the student with communication, time management, supervision, task delegation, conflict management and performance assessment skills.

or

RTE 462 - Teaching Methodologies in Medical Imaging Education

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Provides a general overview of the concepts and theory of Medical Imaging education. It introduces current theories of

teaching adult learners in the Imaging Sciences, objective development of active learning activities, classroom assessment techniques and delivering course content through distance-learning formats.

RTE 481 - Internship: MRI II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 381.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in MRI.

Radiologic Technology BAS

See list of Department Chairs on the Personnel page.

Applicants must meet the following criteria:

- AAS in Radiologic Technology from a regionally accredited institution in radiologic technology
- Registered Radiologic Technologists with American Registry of Radiologic Technologist (AART) in good standing
- Minimum cumulative GPA of 2.00 (C) for all course work completed
- College transfer courses accepted for program entry require a cumulative GPA of 2.00 (C) on a 4.00 scale in related course work
- Meet PCC admissions criteria

Program Requirements:

The Bachelor's in applied Science Degree consists of 120 credit hours with transfer of AAS and general education courses.

BAS general education credits need to total a minimum of 30 credits

RTE AAS transcripts will be evaluated—credit amount will vary depending on the awarding institution

Students can receive prior learning credits for current registries

Additional 300/400 level courses earned through PCC

Any remaining credit hour can be earned through electives if necessary

Graduation Requirements

Students can use a combination of transcribed credits, prior learning assessment, current registry/certificates and additional bachelor level course work at Pueblo Community College to obtain the 120 credits required.

A minimum of 30 credits must be completed at PCC.

Students must complete all courses in their chosen track (MRI or CT) and all general education courses with a grade of C or better.

Internship Requirements

Documentation of current license

Evidence of current CPR

Evidence of professional liability insurance

Documentation of immunizations

Successful background check

Meet requirements of receiving institution

Total Credits: 120

Fall Semester (12 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Spring Semester (14 credits)

MRI Tract

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 321 - Theory and Application of MR Imaging I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental principles of MRI in order to perform clinical MRI examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

CT Tract

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 341 - Theory and Application of CT Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental and advanced principles of Computed Tomography (CT) in order to perform clinical CT examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

RTE 351 - CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Covers the skill and knowledge necessary to perform supplemental procedures for imaging various anatomical structures including the head, spine, chest, abdomen, pelvis and extremities utilizing Computed Tomography. It provides instruction on gross pathological conditions demonstrated on CT images.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

Summer Semester (8 credits)

MRI Tract

RTE 431 - Advanced MRI Protocols and Procedures

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): RTE 331.

Examines specialized advancements in MRI. Emphasis will be placed on the heart and vasculature, functional imaging, contrast agents and their uses, enterography, pelvic run-off and breast imaging.

RTE 381 - Internship: MRI I

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in MR imaging exams. The Internship allows the student to gain clinical experience and develop proficiency in MRI.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

CT Tract

RTE 451 - Advanced CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 351.

Provides the skill and knowledge necessary to perform advanced specialty procedures for imaging various anatomical structures utilizing Computed Tomography. It distinguishes vascular anatomy and incorporates contrast media injections and contraindication into complex imaging studies.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

RTE 382 - Internship: CT I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in Computed Tomography exams. The Internship allows the student to gain clinical experience and develop proficiency in CT.

Fall Semester (13 credits)

MRI Tract

RTE 421 - Theory and Application of MR Imaging II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 321.

Examines in-depth knowledge of designing MRI pulse sequences, data manipulation, artifacts and quality control and quality assurance procedures. Special consideration will be given to methods to shorten scan time, k-space filling and reconstruction, Fast Fourier Transform and image transfer and storage systems used in healthcare facilities.

RTE 431 - Advanced MRI Protocols and Procedures

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): RTE 331.

Examines specialized advancements in MRI. Emphasis will be placed on the heart and vasculature, functional imaging, contrast agents and their uses, enterography, pelvic run-off and breast imaging.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

RTE 481 - Internship: MRI II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 381.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in MRI.

CT Tract

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

OR

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

RTE 482 - Internship: CT II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 382.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in CT.

Miscellaneous Information

¹ One credit elective course to be used if additional course work is required for applicant

² Students are required to complete either HPR 411 Leadership & Management in Health Professions **OR** HPR 468 Pedagogy in Health Professions

³ Offered in the first eight (8) weeks

⁴ Offered in the second eight (8) weeks

Respiratory Therapy, BAS

See list of Department Chairs on the Personnel page.

This program is designed for licensed and registered respiratory therapists who have completed an Associate Degree in Respiratory Therapy from an accredited (Commission on Accreditation for Respiratory Care; CoARC) program and

wish to continue their education and obtain a Bachelor of Applied Science degree. Students will receive 5 to 25 Prior Learning Assessment (PLA) credits for Registered Respiratory Therapy (RRT) and current state licensure. This program provides a student centered on-line learning environment meant to enhance career opportunities. The students will engage in self-directed learning activities and gain specialized knowledge utilizing critical thinking, personal inquiry and reflective practice.

Admission Requirements:

Applicants must meet the following criteria:

- Graduated from an accredited respiratory care program (Commission on Accreditation of Respiratory Care (CoARC)
- Hold a current respiratory therapy license in any state
- Hold a current credential from the National Board of Respiratory Care (NBRC) as a Registered Respiratory Therapist (RRT)
- Have a cumulative GPA of 2.5 for Respiratory Therapy degree and all other required pre-requisite courses must be completed at a "C" level or better.
- Meet PCC admissions criteria

Program Requirements

- The Bachelor's in Applied Science Degree consists of 120 credit hours with the transfer of AAS and general studies courses.
- General studies courses take as AAS: (19 credit hours)
- RCA specific coursework taken as part of AAS in Colorado (54.5 credit hours)
- Additional 300/400 level courses earned through PCC (BAS RT – 28 credit hours)
- A total of 30 credits in general education between the AAS and BAS degree with a minimum of 15 credits in GT pathway designation. Including possible block transfer/Prior Learning Assessment (PLA) for Respiratory Therapy AAS degree, NBRC Registered Respiratory Therapist and current state licensure.
- Any remaining credit hours can be earned through electives if necessary.
- Transferring students from outside the CCCS system will have transcripts evaluated for meeting admissions requirements

Total Credits: 120

Respiratory Therapy-Degree Transfer Credits

Respiratory Therapy, AAS

General Education (12 credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Arts/Humanities GT Pathway course **Credit(s): 3**
OR
- Nature & Physical Sciences GT Pathway course **Credit(s): 3**

First Fall Semester (12 credits)

HPR 301 - Communications in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Develops professional written and oral communication plans to ensure effective patient-centered outcomes between health care professionals, patients and caregivers.

HPR 310 - Quality Improvement in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Introduces approaches to assessing risk and improving health care quality through the practice of Continuous Quality Improvement (CQI). Course explores the conceptual framework for quality improvement, a focus on quality improvement as a strategy to manage cost, boost productivity, and enhance quality outcomes in various health care settings. The course will focus on both conceptual understanding and experiential learning.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

First Spring Semester (12 credits)

HPR 403 - Critical Review of Healthcare Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Teaches how to evaluate and analyze published literature using a scientific approach to develop medical best practices, formulates and research clinical questions to effectively participate in medical discussions.

RCA 401 - Sleep Medicine

Credit(s): 3

Lecture Hour(s): 3

Develops a working knowledge in sleep medicine for health care professionals by reviewing and identifying diagnostic procedures, therapeutic interventions, and sleep disorders.

RCA 402 - Advanced Concepts in Respiratory Therapy

Credit(s): 3

Lecture Hour(s): 3

Evaluates and analyzes current monitoring and diagnostic procedures for the cardiopulmonary patient in the acute and non-acute care settings with an emphasis on quality control, correlation of patient data, application of technology, and analysis of therapeutic protocols and procedures.

RCA 400 - Current Topics in Pulmonary Disease

Credit(s): 3

Lecture Hour(s): 3

Analyze current issues related to respiratory disease, including pathophysiology, management, and outcomes.

First Summer Semester - Elective (4 credits)

RCA 478 - Senior Seminar

Credit(s): 2

Lecture Hour(s): 2

Senior seminar for respiratory care creating a senior project that applies knowledge and concepts through the use of problem-based learning methods in the research and evaluation of industry best practices.

RCA 489 - Inter-Professional Capstone

Credit(s): 2

Lecture Hour(s): 2

Provides an opportunity to apply a working knowledge within an inter-professional team to encourage problem solving and communication regarding current health related issues. This course also provides the opportunity for effective collaboration to improve health outcomes for patients and industry.

Secure Software Development BAS

Computer Information Systems

See list of Department Chairs on the Personnel page.

Bachelor of Applied Science -- Secure Software Development

120 Credit Hours

Total Credits: 120

General Education (30 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

- Natural and Physical Sciences
Choose one CCCS GT-SC1 **Credit(s): 4**

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

- Choose General Education Electives **Credit(s): 13**

Lower Division (51 credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CSC 129 - Introduction to Secure Coding

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 120

Focuses on introduction to secure coding. Emphasizes concepts, principles, and best practices of structured secure programs within security standards. Analysis of design of secure programming is stressed, including costs, threats,

security concepts, policies, coding flaws, vulnerabilities, exploits, and code mitigation. Analysis of the design of legacy and contemporary object oriented languages is emphasized. Focuses on the application of secure coding principles, standards to resolve code flaws and vulnerabilities.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CSC 241 - Advanced Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 240 or instructor approval.

Continues the study of the Java programming language. Covers advanced programming topics including multithreading, network/Internet programming, database programming and JavaBeans. Enables the student to write advanced, large and complex programs.

CSC 245 - Secure Software Development: (Language)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 161 OR Co-Requisite

Corequisite(s): CSC 161 or Pre-Requisite

Focuses on functionality when implementing security consequences with regard to formatted output and arithmetic operations in a program. The course introduces how to write a program that creates safe, reliable, and secure systems free from undefined program behaviors and exploitable vulnerabilities.

CSC 246 - Mobile App Development

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 119.

Learn how to develop mobile apps using key features and frameworks. Students will learn application design and development using a mobile development platform software development kit (SDK) and corresponding programming language. Main features include: handling UI triggered and touch events, data management, simple and complex UI views, drawing, location and application settings.

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

CWB 205 - Client-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the client-side programming skills necessary to create dynamic web content using a markup embeddable and procedural scripting language executed on the client web browser.

Upper Division (39 credits)

CSC 300 - Advanced Computer Architecture

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Covers the analysis of advanced concepts in the applications of computer architecture and programming capabilities with keyboard and display controllers within programs. This course investigates the impact of exceptions and interrupts within a simulator, examines the hazards associated with a pipelined datapath, and uses the analysis of floating-point instructions.

CSC 320 - Software Engineering Fundamentals

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the skills necessary to analyze, design, and implement software engineering projects. The course includes software engineering standards and processes, qualitative aspects including maintainability, extensibility, reusability, and robustness in every stage of the software-engineering life-cycle.

CSC 322 - Security Fundamentals and Databases

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Examines the vulnerabilities of databases to attack. Functional requirements and security testing, focusing on the interaction between a software user and the application, are analyzed. This course will investigate database platforms and provide database developers with an understanding of database development best practices for optimum security.

CSC 324 - Secure Coding Vulnerabilities I

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and implementing software vulnerabilities. This course explores vulnerabilities through code evaluation and implementation of language-specific solutions.

CSC 326 - Secure Scripting of Operating Systems

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and configuring an environment and assessing configuration variables in multiple operating systems. Topics include using multiple utilities in order to assimilate information on a network, host and data communications, and creating scripts for evaluation.

CSC 328 - Security Libraries in Programming Languages

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the issues surrounding security libraries within programming languages. This course analyzes static typing within a software program to assess integrity within a given programming library. The course will also explore what effect mutable resources have on security, along with encryption tools, and violation channels.

CSC 422 - Secure Software Engineering

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the analysis and functionality of defective software and how to develop and implement secure software. The analysis performed by software engineers in order to detect, repair, and maintain safe systems will also be covered.

CSC 424 - Secure Code Vulnerabilities II

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 324

Focuses on advanced implementation of software vulnerabilities. This course covers attack vectors frequently used by malicious actors such as email attachments, compromised "watering hole" websites, and other tools often relied on to

take advantage of unpatched vulnerabilities found in widely-used software applications. Patching techniques will be deployed in order to repair vulnerabilities found in software components.

CSC 426 - Secure Cloud Programming

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and implementing secure applications in the cloud. Topics covered will include designing and implementing applications via the cloud with a focus on security policies, analyzing computer models with recommendations to reduce the risks and security challenges surrounding programming, and data security within the cloud.

CSC 428 - Software Security Testing

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on testing software as it pertains to vulnerabilities within operating systems, libraries, and cloud applications. Topics covered include implementing testing environments through analytical assessments using tools that detect software inefficiencies and using reliable solutions in order to reduce security risks.

Bachelor of Science in Nursing

RN to BSN

See list of Department Chairs on the Personnel page.

This program is designed for Registered Nurses who have completed an Associate Degree Nursing program at an accredited program (Accreditation Commission for Education in Nursing, (ACEN)) and successfully completed the National Council Licensure Examination (NCLEX). This program provides a student centered on-line learning environment meant to enhance career opportunities for RNs who wish to continue their education and obtain a Bachelors of Applied Science degree. Applicants will provide transcripts to be reviewed. A block of 71.5 credits will transfer to PCC—53.5 credits ADN AAS, 21 credits general education credits. BSN course credits—30.5. Applicants may need additional general education courses to complete the 120 required credits for the BSN. All courses are taught online in 8 week blocks.

Total Credits: 120

General Education (18 credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

ANT 107 - Introduction to Archaeology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. The course provides a survey of the archaeology of different areas of the Old and New Worlds, the works of selected archaeologists, and major archaeological theories. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum (24.5 credits)

NUR 301 - Integration into Baccalaureate Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Explores professional nursing practice at the baccalaureate level. Focus is on knowledge and understanding of the professional nursing standards and the nursing role at a baccalaureate level.

NUR 302 - Trends in Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Examines current issues that nurses encounter in the health care environment including their roles and responsibilities within the nursing profession.

NUR 303 - Nursing Research / Evidence Based Practice

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 135

Analyzes concepts associated with nursing research, collection, and analysis of data with emphasis on integration of evidenced-based practice within nursing. The course develops the skills for critiquing published research.

NUR 408 - Legal and Ethical Issues Related to Professional Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval.

Emphasizes the ethical and legal obligations of professional nursing practice. The focus is on values clarification, ethical theory, and ethical decision making models. Additionally, legal issues related to healthcare will be explored.

NUR 409 - Leadership in the Nursing Profession

Credit(s): 3.5

Lecture Hour(s): 3.5

Prerequisite(s): Program approval

Focuses on the role of the professional nurse as a leader within healthcare. The course integrates concepts needed to assume leadership and management positions in the healthcare environment.

NUR 410 - Community Health Nursing/Practicum

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): Program approval

Focuses on the role of the professional nurse in community-based practice settings, with an emphasis placed on health promotion, prevention, and optimal wellness of the community.

NUR 411 - Senior Seminar

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval.

Integrates theory into practice by building on previous concepts and knowledge.

Electives-must choose two (2) courses (9 credits)

NUR 304 - Informatics / Healthcare Technology

Credit(s): 3

Lecture Hour(s): 3

Explores concepts and applications related to the nurse's role in utilizing healthcare informatics involving patient care technology. This course will explore the impact of information management systems on the delivery of patient care, healthcare teams, and health outcomes.

NUR 305 - Emergency Preparedness

Credit(s): 3

Lecture Hour(s): 3

Focuses on the nurse's roles and responsibilities in the most common types of disasters and how the nurse can deliver effective care in various emergency situations.

NUR 306 - Gerontology Nursing

Credit(s): 3

Lecture Hour(s): 3

Focuses on optimizing health for the aging client within the framework of the nursing process. Emphasis is on supporting the unique needs of the aging population.

NUR 307 - Behavioral Health

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval

Provides an overview of behavioral health promotion for individuals, families, and populations with behavioral health concerns. The focus of the course will explore the nurse's impact on behavioral health trends.

Notes

¹ May be taken prior to acceptance into BSN program, must be completed during the first (1) semester of BSN program

² Can be taken concurrently with program courses

³ Additional guarantee transfer general education courses are listed in the catalog

⁴ Elective course

Certificate

PCC offers the following Certificates that are eligible for federal or state financial aid funds. For more information, please contact the appropriate department chairperson.

Barbering Certificate

CIP 12.0402

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

Total Credits: 53

Certificate Requirements

General Education Requirement (3 Credits)

- Choose one Arts & Humanities **Credit(s): 3**

Core Requirements (50 Credits)

BAR 103 - Introduction to Hair & Scalp

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of hair, scalp treatments and shampoos. Focuses on recognition and treatment of disorders of hair and scalp, product knowledge and proper massage techniques to help control these disorders and cleanse the hair and scalp. Covers terminology dealing with hair structure scalp and hair disorders. Training is provided in a lab or classroom setting.

BAR 107 - Introduction to Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 - Intermediate Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 166 - Introduction to Facial Massages & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes basic understanding of facial massage manipulations and the study of skin in both practical and theory applications. Covers the benefits derived from proper facial massage and a good skin care routine.

BAR 167 - Intermediate Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on practical application dealing with anatomy, skin disorders, skin types and facial shapes. Students help patrons select proper skin care treatments

BAR 207 - Advanced Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Board license exam.

BAR 266 - Advanced Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes anatomy, skin disorders, skin types and facial shapes. Students guide patrons on selection of proper skin care treatments. Covers student preparation for State Board licensing examination on theory and practical procedures.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

COS 161 - Intermediate I: Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

COS 260 - Intermediate II: Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides continued study of theory and practice of proper methods of sterilization, disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

COS 261 - Advanced Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 161.

Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

Basic Firefighter - Structural (Fire Academy)

Program Description

See list of Department Chairs on the Personnel page.

The Fire Science Technology is an Associate of Applied Science (AAS) degree designed to meet the needs of fire protection and safety personnel. The program will prepare you for a career in fire science or a related field. Courses are offered through traditional classroom instruction, independent study, and hands on training in conjunction with local fire departments.

Career Information

The Fire Science Technology program prepares students for entry level positions in the fire service industry.

Total Credits: Variable

Basic Fire Science (9 credits)

FST 102 - Principles/Emergency Services

Credit(s): 3

Lecture Hour(s): 3

Provides an overview 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; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 109 - Occupational Safety & Health

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout emergency services.

Fire Investigator I (9 credits)

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 205 - Fire Investigation I

Credit(s): 3

Lecture Hour(s): 3

Provides the student with the 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 firesetter, and types of fire causes.

FST 252 - Fire Investigation II

Credit(s): 3

Lecture Hour(s): 3

Provides the student with advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.

Firefighter I (12 credits)

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

Vehicle Extrication (3 credits)

FST 126 - Vehicle Extrication Awareness Level

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the student with entry level knowledge and skills to safely operate at the scene of a vehicle/machinery extrication. Training in this course represents the minimum level of training needed to respond to a vehicle extrication incident.

FST 127 - Vehicle Extrication Operations Level

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Expands and refines the objectives of FST 126. Students shall be capable of hazard recognition, equipment use and techniques necessary to operate safely and effectively at incidents involving persons injured or entrapped in a vehicle or machinery.

Fire Officer I (12 credits)

FST 201 - Instructional Methodology

Credit(s): 3

Lecture Hour(s): 3

Identifies the 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. Fire Instructor I State Certification is possible.

FST 206 - Fire Co Superv and Leadership

Credit(s): 3

Lecture Hour(s): 3

Addresses the requisite knowledge and skills required to perform at level 1 as identified in National Fire Protection Association (NFPA) 1021, Fire Officer Professional Qualifications. Areas of focus include: fire department organization, company officer traits, roles and responsibilities, communications practices, administrative functions, safety, health and wellness, training, fire prevention, human resources management, and incident management and operations. The course prepares the learner for the Colorado Fire Officer I State Exams and JPR evaluations.

FST 253 - NIMS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): FST 202.

Focuses on the National Incident Management System, including fire ground management and resource management. Multiagency coordination systems are discussed; organization preparedness for large scale emergencies, communication and information are addressed. The course concludes with a review of the National Response Plan.

FST 255 - Fire Service Management

Credit(s): 3

Lecture Hour(s): 3

Serves as the basic management course for present and potential members of the fire and emergency service professions. The course introduces the student to current fire service management practices, challenges, and real-world applications from the fire officer's point of view. The course addresses decision-making, problem solving, necessary communication skills, conflict resolution, effective leadership skills, as well as the role of the fire service manager in supervising personnel and programs.

Basic Firefighter - Structural (Fire Academy) (16 credits)

FST 108 - Firefighter Professional Preparation

Credit(s): 1

Lecture Hour(s): 1

Articulates strategies for creating success in a career as a Firefighter. This course discusses requirements in professionalism, emergency response in a multicultural environment, the psychological rigors and stressors typical of the vocation, and use of potential resources to attain career goals and plans.

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 160 - Candidate Physical Abilities Test Prep

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prepares students for the CPAT test and other related fitness testing for entry level firefighters. The course will focus on aerobics and strength training to assist students in passing a CPAT test or any related fitness entry level test. Students will also be trained on how to use various firefighting tools as they pertain to how the tools will be used in the CPAT or other related entry-level fitness test.

Fire Prevention & Public Education (14 credits)

FST 106 - Fire Prevention

Credit(s): 3

Lecture Hour(s): 3

Provides 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.

FST 150 - Introduction to Fire Prevention Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on conducting prevention and education needs assessment, targeting audiences; development and delivery of prevention and education programs. Includes methods of conducting fire prevention and safety inspections.

FST 204 - Principles of Code Enforcement

Credit(s): 3

Lecture Hour(s): 3

To provide the students with the fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program.

FST 208 - Fire Plans Review and Acceptance Testing

Credit(s): 2

Lecture Hour(s): 2

Instructs the student on how to review building plans submitted to a fire department, acceptance testing procedures, implementation of a fire inspection program, and how to deal effectively with the public for fire prevention and education activities.

FST 209 - Fire Protection Systems

Credit(s): 3

Lecture Hour(s): 3

Provides information relating to the 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.

Bookkeeping Certificate

CIP 52.0302

Career Opportunities

The AAS degree in Accounting prepares you for a career in entry-level accounting or upper-level bookkeeping positions.

Program Description

The Bookkeeping Certificate focuses on the role of accounting basics in business and management to prepare students for an entry-level position in Bookkeeping, Payroll, Accounting, and Auditing (clerks). Students will encounter real-world scenarios used in payroll, tax, and computerized accounting along with the use of bookkeeping software. Students will use accounting information resources and systems, and present conclusions based on accounting and business data. Additionally, students will use ledgers, journals, and worksheets to complete formal, informal, and quantitative accounting tasks.

Total Credits: 29

Certificate Requirements

General Requirement (3 Credits)

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

Core Curriculum Requirements (26 credits)

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover

the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

Broadcasting & Production Technology Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic

skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 27

Certificate Requirements

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

MGD 264 - Digital Video Editing II

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): MGD 164

Looks at the more complex and advanced techniques of digital video editing. Areas of editing such as masking, filtering, blue/green screening, track mattes and image mattes will be examined. Students will produce a movie project in this class and discuss practical ways to distribute to various audiences.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

RTV 102 - Beginning Television

Credit(s): 3

Vocational Lab Hour(s): 4.5

Focuses on principles and techniques of television production in theory and the approach of studio and production. Emphasizes producing television programs, beginning with a concept through script to actual studio production, pre-production and post-production.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

Business Fundamentals Certificate

CIP 52.0201

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS and Certificate programs prepare you for entry level positions in marketing, management or sales; they also give you the skills you need to open your own business.

Program Description

You will study management from three perspectives: marketing, management and economics. Marketing studies offer specific training in sales, advertising, promotion and marketing. Management studies offer a generalized perspective

with broad applications in the business world. Economic studies give you a basic understanding of economics and its relationship to other disciplines.

The Business Fundamentals Certificate program prepares you for an entry-level position in business or for starting your own small business. You can apply all course work for this certificate to the AAS Degree in Business Management.

Total Credits: 25

Certificate Requirements

ACC 115 - Payroll Accounting

Credit(s): 3

Lecture Hour(s): 3

Covers federal and state employment laws and their effects on personnel and payroll records. The course is non-technical and is intended to give students a practical working knowledge of the current payroll laws and actual experience in applying regulations, including computerized payroll procedures.

OR

ACC 131 - Income Tax

Credit(s): 3

Lecture Hour(s): 3

This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting periods and methods, and property transactions, with emphasis on taxation of individuals and sole proprietorships.

OR

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws

impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

CHOOSE 4 COURSES BELOW (12 Credits)

BUS 102 - Entrepreneurial Operations

Credit(s): 3

Lecture Hour(s): 3

Explores the essential requirements for starting and operating a business. This course covers basic concepts of business law, marketing, finance and operations. It guides the development of an effective business plan and prepares students to launch and sustain their own businesses.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the

business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

MAN 200 - Human Resource Management I

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the contemporary issues, theories, and principles used to effectively manage human resources. Topics covered include job analysis and design, talent acquisition and retention, planning and recruiting human resources, selecting employees, job placement, employee training and performance management, selecting employees, compensation and benefits, and retaining employees.

MAN 216 - Small Business Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107

Examines the elements necessary for the successful formation of a new small business. It is also designed to enhance the skills of those already involved in the operation of a small business. The course includes the development of a complete small business plan.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

Business Management Certificate

CIP 52.0201

See list of Department Chairs on the Personnel page.

Program Description

The AAS and Certificate programs prepare you for entry level positions in marketing, management or sales; they also give you the skills you need to open your own business.

Total Credits: 31

Certificate Requirements

ACC 131 - Income Tax

Credit(s): 3

Lecture Hour(s): 3

This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting periods and methods, and property transactions, with emphasis on taxation of individuals and sole proprietorships.

OR

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

OR

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

OR

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

OR

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or

organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

Business Office Professional

See list of Department Chairs on the Personnel page.

Program Description

Prepares students for a career as an office professional in a variety of fields and industries. You will learn state-of-the-art technology, develop computerized or payroll skills, learn top-notch interpersonal (or group) communication skills and/or human resource management skills, develop a strong business understanding and report writing skills, and learn to solve problems creatively. As a student preparing to enter the workforce, there is the opportunity to gain relevant experience through internships or enhance your knowledge of personal finance.

Total Credits: 24

Certificate Requirements

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

OR

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

BTE 287 - Cooperative Education/Internship

Credit(s): 0.50-6

Cooperative Education Hour(s): 0.75-9

Prerequisite(s): Department Chair Approval.

Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work sites that are related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

OR

BUS 116 - Personal Finance

Credit(s): 3

Lecture Hour(s): 3

Surveys the basic personal financial needs of most individuals. Emphasizes the basics of budgeting and buying, saving and borrowing money, the intricacies of home ownership, income tax and investments, and the wise use of insurance, wills and trusts.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

OR

MAN 200 - Human Resource Management I

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the contemporary issues, theories, and principles used to effectively manage human resources. Topics covered include job analysis and design, talent acquisition and retention, planning and recruiting human resources, selecting employees, job placement, employee training and performance management, selecting employees, compensation and benefits, and retaining employees.

COM 217 - Group Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation. GT-SS3

OR

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Business Ownership Certificate

See list of Department Chairs on the Personnel page.

Program Description

The Business Management program (AAS Degree and Certificates) prepares students for entry level positions in Marketing, Management, Sales, and Entrepreneurship. These offerings also provide opportunities for individuals working within the industry to up-skill and advance their careers. The (AA) in Business Management prepares students to transfer to bachelor's degree programs in Business Management. Per the statewide articulation agreement, students can complete fundamental courses at PCC and transfer to complete a Bachelor's Degree with a specific emphasis.

Total Credits: 18

Certificate Requirements (18 credits)

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

ENP 106 - Entrepreneurship Opportunity Analysis/Feasibility Study

Credit(s): 3

Lecture Hour(s): 3

Determines if a business venture is feasible based on personal, professional, and financial goals. This course will help to identify and analyze the present climate for business ideas through an industry analysis, target market analysis, competitive analysis, and financial analysis.

ENP 205 - Marketing for the Entrepreneur

Credit(s): 3

Lecture Hour(s): 3

Covers marketing strategies to launch and sustain an entrepreneurial venture. This course will include topics on marketing entrepreneurial ventures utilizing innovative and financially responsible marketing strategies. This course will help students to develop an understanding of entrepreneurial marketing goals and objectives. The course covers marketing principles and electronic marketing.

ENP 206 - Entrepreneurship Legal Issues

Credit(s): 3

Lecture Hour(s): 3

Explores legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships, and corporations. This course reviews articles of incorporation and the filing process, employment law, property, landlord tenant rights and duties, and business insurance.

ENP 207 - Entrepreneurship Financial Topics

Credit(s): 3

Lecture Hour(s): 3

Will cover topics such as financial planning for entrepreneurs, understanding tax considerations, understanding financial documents, financial ratio analysis, cash flow management, cost of capital and budgeting, raising capital, valuation, risk assessment, and venture exits.

ENP 209 - Entrepreneurship Business Plan

Credit(s): 3

Lecture Hour(s): 3

Guides students through the evaluation of a business concept. This course will include writing a comprehensive business plan. This course explores both traditional and lean business planning as a means to establish strategic vision and direction for a business. This course assesses the strengths and weaknesses of a business concept. This course will include identifying external and environmental factors related to business ownership and evaluating various resources available for funding small businesses.

Cosmetology Certificate

CIP 12.0401

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Cosmetology degree or certificate – This program provides training in hair, skin and nail care services. Instruction is provided in hair cutting, hair styling, hair coloring, chemical texture services, skin care, waxing services, make-up application and nail care needs.

Total Credits: 56

Certificate Requirements

Core Requirements (53 Credits)

COS 103 - Shampoo/Rinses/Conditioners I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 - Introduction to Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 - Intermediate: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 - Introduction to Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair-cutting implements. Focuses on basic hair-cutting techniques using all cutting implements, disinfection and sanitation procedures as they relate to haircutting.

COS 121 - Intermediate I: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Focuses on theory related to facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 - Introduction to Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Combines theory with the practical application of roller placement, shaping, pin curls, finger waves, air forming iron curling, soft pressing and hard pressing.

COS 131 - Intermediate I: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 - Introduction to Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

COS 141 - Intermediate I: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 203 - Shampoo/Rinses/Conditioners II

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 103.

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 - Intermediate II: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

COS 211 - Advanced Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 111.

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 - Intermediate II: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 - Advanced Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 121.

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 - Intermediate II: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 - Advanced Hair Styling

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 131.

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 - Intermediate II: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

COS 241 - Advanced Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 141.

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

EST 110 - Introduction to Facials and Skin Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic understanding of massage manipulations when providing facials, the study of skin in both theory and practical applications, and benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

EST 111 - Intermediate Facials & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 110.

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 210 - Advanced Massage & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 111.

Provides the student with advanced techniques in massage, skin care and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 - Facial Make-up

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): EST 110.

Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as

they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 - Hair Removal

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): EST 110.

Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

NAT 108 - Introduction of Manicuring/Pedicures/Artificial Nails

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 158 - Intermediate Manicuring/Pedicures/Artificial Nails

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 159 - Intermediate Manicuring/Pedicures/Artificial Nails II

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 208 - Advanced Manicuring/Pedicures/Artificial Nails

Credit(s): 4

Voc/Tech Clinic Hour(s): 8

Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using

models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.

Elective

Art and Humanities (3 Credits)

Recommended:

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 122 - Drawing for the Graphic Novel

Credit(s): 3

Art Studio Hour(s): 6

Introduces the drawing and fine art principles used in developing illustrations for the graphic novel. Students explore the graphic novel as a vehicle for a unique, personal venue for artistic expression. Students explore the history of the graphic novel as well as examine different artistic styles used in the development of graphic novel illustrations. The application of artistic concepts in the creation of an individual graphic work and thorough examination of course material in terms of style, design considerations and visual elements are the primary focus. Students will create images for a graphic novel, focusing on unity of style and techniques for creating images appropriate to story line using black and white or grayscale illustrations.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 133 - Jewelry and Metalwork I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the construction of jewelry designs in metals and small casting techniques.

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

or

ART 161 - Ceramics I

Credit(s): 3

Art Studio Hour(s): 6

Introduces traditional and contemporary ceramic forms and processes including hand building and throwing on the potter's wheel.

Cyber Defense Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 28

Certificate Requirements

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

CNG 256 - Vulnerability Assessment I

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 220, CNG 124, and CNG 132.

Presents students with an introduction to vulnerability assessment. Vulnerability assessment skills are necessary to understand how companies address vulnerabilities in the business environment. Students gain a better understanding of how information technology security integrates into the corporate world and how a balance must be achieved between security and functionality.

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

Digital Video Editing Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 18

Certificate Requirements

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

MGD 264 - Digital Video Editing II

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): MGD 164

Looks at the more complex and advanced techniques of digital video editing. Areas of editing such as masking, filtering, blue/green screening, track mattes and image mattes will be examined. Students will produce a movie project in this class and discuss practical ways to distribute to various audiences.

RTV 102 - Beginning Television

Credit(s): 3

Vocational Lab Hour(s): 4.5

Focuses on principles and techniques of television production in theory and the approach of studio and production. Emphasizes producing television programs, beginning with a concept through script to actual studio production, pre-production and post-production.

RTV 208 - Basic Video Production

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): RTV 102.

Introduces basic videotape production and editing on linear and nonlinear editing systems. Covers producing, writing, directing, lighting, editing and shooting techniques. Enables the student to gain experience in paint and character generator graphics, image processing, transitions and techniques using the Avio and Casablanca nonlinear editors.

Early Childhood Education Director Certificate

CIP 13.1210

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 30

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 205 - Nutrition, Health and Safety

Credit(s): 3

Lecture Hour(s): 3

Focuses on nutrition, health and safety as key factors for optimal growth and development of young children. This course includes nutrition knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families for early childhood educators. This course addresses children ages birth through 12 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 240 - Administration of Early Childhood Care and Education Programs

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Provides foundational knowledge in early childhood program business operations, program development and evaluation. This course covers administrative skills, ethical decision making, risk and resource management, and components of quality Early Childhood Education (ECE) programs serving children ages birth through 12 years.

ECE 241 - Administration: Human Relations for Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Focuses on the human relations component of an early childhood professional's responsibilities. This course includes director-staff relationships, staff development, leadership strategies, family-professional partnerships and community interaction.

ECE 260 - The Exceptional Child

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of critical elements related to educating young children with disabilities or special needs in the early childhood setting. Topics include typical and atypical development; legal requirements; research-based practices related to inclusion; teaming and collaboration; and accommodations and adaptations. This course examines how a disability or special need may impact a young child's learning process. This course addresses children ages birth through 8 years.

Early Childhood Teacher Certificate

CIP 13.1210

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 18

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children**Credit(s): 3****Lecture Hour(s): 3**

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice**Credit(s): 3****Lecture Hour(s): 3**

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 220 - ECE Curriculum Development: Methods and Techniques**Credit(s): 3****Lecture Hour(s): 3****Prerequisite(s):** Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 238 - Ece Child Growth and Development**Credit(s): 3****Lecture Hour(s): 3****Prerequisite(s):** Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

Electromechanical Technology Certificate**CIP 15.0303**

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Industrial Electronics Technology prepares you for a career as an electronics technician, an electromechanical technician, a semiconductor manufacturing technician or an electromechanical field service technician.

Program Description

This program develops essential skills for maintaining the complex electromechanical systems found in modern automated manufacturing facilities. After completing a core of courses in math, physics, fundamental analog and digital electronics, robotics and programmable logic controllers, you will branch off into one of two optional tracks. The electromechanical option emphasizes a broader range of skills, including print reading, motors and controls, and mechanical components. In addition to the two AAS degree options, several certificate options are also available.

Program Requirements

Entrance Requirements:

You should have good basic reading, language and math competencies. High school algebra and physics are recommended but not required. Refresher classes are available.

Total Credits: 29

Certificate Requirements

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

or

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

EMT Enhanced Certificate

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Requirements

Entrance Requirements:

To enroll in all EMS programs, you must be at least 18 years of age, have all current immunizations, pass a background check and a drug screen and be able to meet the requirements of the Functional EMS Job Description.

Total Credits: 18

Prerequisite Courses for Program Admission Credits: 18

Student must have a current Health Care Professional CPR card, successful completions of CCR 092, qualifying assessment scores

Certificate Requirements

First Semester (12 credits)

EMS 121 - EMT Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management and patient assessment.

EMS 122 - EMT Medical Emergencies

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121. EMS 170.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history and pathophysiology when assessing and treating the medical patient.

EMS 123 - EMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.

EMS 124 - EMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials and terrorism.

EMS 170 - EMT Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

Second Semester (6 credits)

HPR 190 - Basic EKG Interpretation

Credit(s): 2

Lecture Hour(s): 2

Provides instruction for interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Twelve-lead EKG may be discussed.

EMS 132 - EMS Intravenous / Intraosseous Therapy

Credit(s): 2

Lecture Hour(s): .25

Vocational Lab Hour(s): 1.9

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current Colorado Certification as EMT or Department Chair Approval

Focuses on cognitive and skill practice for the Colorado scope of practice for the IV / IO endorsement as outlined in the Intravenous / Intraosseous Therapy and Medication Administration course curriculum.

EMS 180 - EMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Provides the Emergency Medical Technician (EMT) with a supervised clinical learning experience that goes beyond the initial EMT requirements for the State of Colorado Department of Health. Enables the student to work with an assigned preceptor for 90 hours of clinical experience to develop an understanding of the role and responsibilities of the EMT-Basic.

EMT Intermediate Option Certificate

CIP 51.0904

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-I99, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-I99. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 18

Certificate Requirements

Esthetician Certificate

CIP 12.0409

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Esthetician certificate – This certificate program provides training in facial care.

Total Credits: 20

Certificate Requirements

Core Requirements (20 Credits)

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

EST 101 - Introduction to Sterilization, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of sterilization, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with sterilization and sanitation.

EST 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with disinfection, sanitation and safety.

EST 161 - Intermediate Disinfection, Sanitation & Safety

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Presents theory and the daily utilization and practice of the proper methods of disinfection, sanitation, and safety. Procedures as related to all phases of the industry. Training is provided in a supervised (clinical) setting.

EST 110 - Introduction to Facials and Skin Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic understanding of massage manipulations when providing facials, the study of skin in both theory and

practical applications, and benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

EST 111 - Intermediate Facials & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 110.

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 210 - Advanced Massage & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 111.

Provides the student with advanced techniques in massage, skin care and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 - Facial Make-up

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): EST 110.

Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 - Hair Removal

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): EST 110.

Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

First Year Nursing - PN Certificate Option

CIP 51.3801

See list of Department Chairs on the Personnel page.

Total Credits: 54

Certificate Requirements

General Education Requirements (18 Credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

Core Curriculum Requirements – 1st year (33 Credits)

Semester 1 – Fall

NUR 109 - Fundamentals of Nursing

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 112, HPR 108, MAT 103. Psych Tech: NUR 112.

Introduces the fundamental concepts necessary for safe, patient-centered nursing care to a diverse patient population while integrating legal and ethical responsibilities of the nurse. Introduces caring, critical thinking, the nursing process, quality improvement and communication used when interacting with patients and members of the interdisciplinary team, and relates evidence-based nursing practice. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings providing care to stable patients with common health alterations.

NUR 112 - Basic Concepts of Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 109, HPR 108, MAT 103; Psych Tech: NUR 109.

Overview of the basic principles of pharmacology including major drug classifications and prototypes of commonly used medications. Principles of medication administration include aspects of best practice for safe, quality, patient-centered care. Central points include safety, quality improvement factors in the administration of medications, patient teaching and variations encountered when administering medications to diverse patient populations across the lifespan.

- NUR 175 - ST - Introduction to Nursing **Credit(s): 3**

Semester 2 – Spring

NUR 106 - Med-Surg Nursing Concepts

Credit(s): 7

Lecture Hour(s): 3.40

Vocational Lab Hour(s): 0.90

Voc/Tech Clinic Hour(s): 9.90

Prerequisite(s): Admission to Nursing Program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 150 or permission of the program director.

NUR106 is the first medical/surgical nursing course. Building on NUR 109, this course provides for the acquisition of basic medical/surgical nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered care to a developmentally and culturally diverse adult patient population experiencing various medical/surgical interventions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings.

NUR 150 - Maternal-Child Nursing

Credit(s): 6

Lecture Hour(s): 3.30

Vocational Lab Hour(s): 2.10

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 106 or permission of the program director.

Nursing 150 provides for the acquisition of maternal/child nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, family-centered nursing care to childbearing families and children that is developmentally and culturally appropriate. Incorporates evidence-based practice, standards of practice, quality improvement, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of maternal/child and pediatric clinical settings.

Semester Summer (Optional for Certificate)

NUR 169 - Transition into Practical Nursing

Credit(s): 4

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or program director permission.

Facilitates the transition into the role of the practical nurse with emphasis on distinguishing the defined practical nurse scope of practice related to clinical practice, communication, nursing process, ethical/legal issues and leadership skills. The student practices in the role of the practical nurse in the associated clinical experience.

Fitter or Combination Welder Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 20

Certificate Requirements

Core Requirements (20 Credits)

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 125 - Introduction to Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124.

Covers welding in all positions and on various joint configurations using the GMAW (mig) welding process on carbon steel, stainless steel and aluminum. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 224 - Advanced Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers Gas Tungsten Arc Welding (GTAW) operations utilizing a variety of base metals and advanced joint designs.

WEL 225 - Advanced Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers welding in all positions on carbon steel plate with the GMAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Forensic Computing Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 23

Certificate Requirements

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

CNG 258 - Digital Forensics

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): CNG 124.

Corequisite(s): CIS 220.

Exposes the student to the field of digital computer forensics and investigation. This class provides the student with methods to properly conduct a digital forensics investigation including a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analyses.

General Machining Technology Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 35

Certificate Requirements

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

MAC 243 - Mastercam

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces the concepts of creating basic 2D and 3D Mastercam wireframes, building and manipulating surfaces and

solids. The practices and techniques of fixture incorporation, tool pathing, and machine code generation will be discussed. Basic user interfaces and custom interface setup will be covered, as well as common file storage.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 130 - Conventional Lathe Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Includes calculation of speeds and feeds on various materials, identification and application of various work holding techniques, tool forming, advanced machining practices and applications, and spindle tooling. Students will learn how to calculate and turn tapers using the compound slide or taper attachment, offset work on a four jaw chuck, turning between centers, boring, grooving, finishing, single point threading, knurling, tool grinding, drilling operations, and reaming.

MAC 131 - Milling Machines & Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces vertical milling machines. The operations and applications will consist of using the machine controls, speeds and feeds, spindles, arbors and adapters cutting tools, tool holders, conventional and climb milling applications simple indexing, fixture alignments, work holding methods. Students will become familiar with set-up applications considering offset boring operations, face milling, plain milling, and precision drilling applications. Students will be required to produce parts to a tolerance of +/- .004in. and perform competencies set by manufacturing standards.

MAC 250 - Advanced Inspection Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of quality control, TQM and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

MAC 203 - Introduction to CNC Operations

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Introduces basic writing and editing of CNC programs. G&M codes, math, speeds feeds, production processes including basic process controls, simple fixturing, and documentation associated with manufacturing will be covered.

MAC 208 - CNC Operations II

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Further develops skills in writing and editing advanced CNC programs. G&M codes, math, speeds feeds, production processes including multi-part, process controls, fixturing, and documentation associated with manufacturing will be covered.

Hairstylist Certificate

CIP 12.0407

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Hairstylist certificate – This certificate program provides training in hair care. Instruction is provided in hair cutting, hair styling, hair coloring and chemical textures services.

Total Credits: 40

Certificate Requirements

Core Requirements (40 Credits)

COS 103 - Shampoo/Rinses/Conditioners I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 - Introduction to Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 - Intermediate: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 - Introduction to Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair-cutting implements. Focuses on basic hair-cutting techniques using all cutting implements, disinfection and sanitation procedures as they relate to haircutting.

COS 121 - Intermediate I: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Focuses on theory related to facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 - Introduction to Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Combines theory with the practical application of roller placement, shaping, pin curls, finger waves, air forming iron curling, soft pressing and hard pressing.

COS 131 - Intermediate I: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 - Introduction to Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

COS 141 - Intermediate I: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

COS 161 - Intermediate I: Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

COS 203 - Shampoo/Rinses/Conditioners II

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 103.

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 - Intermediate II: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

COS 211 - Advanced Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 111.

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 - Intermediate II: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 - Advanced Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 121.

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 - Intermediate II: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 - Advanced Hair Styling

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 131.

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 - Intermediate II: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

COS 241 - Advanced Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 141.

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

COS 260 - Intermediate II: Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides continued study of theory and practice of proper methods of sterilization, disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

COS 261 - Advanced Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 161.

Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

COS 262 - Advanced II: Disinfection, Sanitation & Safety

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): COS 260.

This course is the extra hours/credits required for the hairstylist program, per State Board of Colorado Barber/Cosmetology Board. Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

HIT Medical Coding Certificate

See list of Department Chairs on the Personnel page.

This program prepares students for professions in the Health Information Management field. The roles of clinicians and information technologists are explored, specifically addressing electronic health records (EHR), safer and cost effective health practices, and the transfer of personal health information nationwide (Health Information Exchange HIE). The HIT program has two degree offerings: Medical Coding and Healthcare Information Systems. The Introduction to Health Information Technology Certificate and the Medical Coding Certificate serve as stackable credentials for those who have formal training in other disciplines such as Office Management or Cyber Security.

Total Credits: 42

HIT Medical Coding - AHIMA Accredited Certified Coding Associate (42 credits)

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

HIT 241 - CPT Coding Basic Principles

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232.

Provides the student with skill sets to apply the current procedural terminology (CPT) and HCPCS code set principles and guidelines for application in reporting/communicating information and data about clinical services provided to patients by healthcare providers. Includes understanding what the CPT nomenclature is, how and why it is used, and guidelines for each code category and how it is applied to represent services within each code category.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HPR 232 - Disease Process and Treatment

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 106

Covers disease processes and drug therapy used to treat commonly found pathological conditions. Normal anatomy and physiology of each body system is reviewed. Conditions that disrupt homeostasis are examined. Conditions considered are both acquired and congenital. Diagnostic methods, management, treatment modalities and prognosis are discussed. Classifications of drugs are introduced. A general understanding of the actions; absorption, metabolism and excretion; and reasons for use of various groups of pharmacologic agents are introduced.

HIT 261 - Healthcare Software

Credit(s): 3

Lecture Hour(s): 3

This course covers basic computer system architecture, file structure and design for healthcare settings. Topics include system analysis, design, security and selection for a variety of hardware environments. This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application. Security and confidentiality issues, concerns and implications in relation to the electronic health record will be addressed.

HIT 252 - Coding II for Certification

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Covers medical necessity and coding issues using ICD and CPT coding principles. Students should already possess a fundamental understanding of the CPT, ICD and HCPCS coding principle. Intensive coding application will be achieved through the use of medical records, case studies and scenarios. DRGs, APCs, RUGs, RBRVs and the Correct Coding Initiative (CCI) will also be covered in this class.

HIT 105 - Principles of Healthcare Reimbursement

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Provides students with the knowledge needed to perform necessary tasks involved in healthcare reimbursement systems, including payment methodologies, use of clinical data and compliance.

HIT 188 - Health Information Practicum I

Credit(s): 2

Practicum Hour(s): 4

Prerequisite(s): HIT 252 or Department Chair Approval.

Provides a directed clinical experience which focuses on the practice of skills related to the application of legal principles, record analysis and abstraction and record retention and retrieval.

HIT 268 - Certification Test Preparation

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares students who have made the decision to obtain a national health information technology credential by completing national credentialing exams.

HIT 289 - HIT Capstone Course

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department approval required

Provides a demonstrated culmination of learning within a given program of study.

Hospitality Sales and Marketing Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 30

Certificate Requirements

General Education Requirements (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

Hospitality Sales and Marketing Requirements (21 Credits)

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

MAR 160 - Customer Service

Credit(s): 3

Lecture Hour(s): 3

Enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

Industrial Technology Maintenance Level I Certificate

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The Industrial Technology Maintenance Level one Certificate provides foundational skills. Students may start as an entry level operator and are encouraged to obtain the Level Two Certificate and the degree to pursue careers as an electronics technician, an electro-mechanical technician, a semiconductor manufacturing technician, or an electro-mechanical field service technician.

Total Credits: 31

Certificate Requirements

Fall Semester (15 Credits)

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or

other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

Spring Semester (16 Credits)

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 254 - Industrial Wiring

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on the required and recommended practice for industrial wiring. The National Electrical Code is applied to industrial power and control wiring. Covers specification and installation of wiring, conduit, enclosures and termination components in lecture and applied during lab.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 265 - Mechanical Component II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes coupling, vibration, shafting, keys and keyways, belts and chain drives, gears and gear drive, and seals.

Information Assurance Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 19

Certificate Requirements

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

Introduction to Health Information Technology

Please see list of department chairs on the Personnel page.

Program Description

This program prepares students for professions in the Health Information Management field. The roles of clinicians and information technologists are explored, specifically addressing electronic health records (EHR), safer and cost effective health practices, and the transfer of personal health information nationwide (Health Information Exchange HIE). The HIT program has two degree offerings: Medical Coding and Healthcare Information Systems. The Introduction to Health Information Technology Certificate and the Medical Coding Certificate serve as stackable credentials for those who have formal training in other disciplines such as Office Management or Cyber Security.

Total Credits: 18

Core Curriculum Requirements

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful

information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

HIT 112 - Legal Aspects for Health Records

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the legal system and defines the role of the healthcare professionals. Specific federal and state laws are identified and discussed as they relate to release of medical information.

HIT 120 - Working with Health IT Systems

Credit(s): 4

Lecture Hour(s): 4

Provides hands-on experience with a computerized HIT system/electronic health record, utilizing contemporary online systems with simulated data. The course will include additional lecture, project work and practice in the use of HIT systems. Students will play the role of practitioners using these systems and experience threats to security and gain an appreciation of the need for standards and high levels of usability. Students will also learn how errors can occur and ways to minimize them.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HIT 222 - Quality Management

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the basic concepts of quality management in the healthcare environment. Requirements by regulatory agencies regarding quality documentation, utilization and risk management are discussed. Data collection, verification, analysis, descriptive statistics and presentation techniques will be studied. The course emphasizes the ongoing use of objective data and feedback to improve processes, systems and patient outcomes. Analysis of documentation for various purposes is also covered.

IT Industry Certification Preparation CER

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS IT Industry Certification Preparation Program provides the theory and technical training so that students are prepared to sit for examination to earn A+, Network+, and Security+ industry credentials, from CompTIA.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 16

Certificate Requirements

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 289 - Capstone

Credit(s): 1-6

Internship Hour(s): 3-18

Serves as the Capstone course for CIS majors. Incorporates projects that allow students to develop advanced techniques and assemble information from different courses. Most projects will include the creation of interactive application programs for the non-computer user and require research beyond the classroom to prepare the student for entry-level employment in a variety of situations.

Law Enforcement Academy Certificate

CIP 43.0107

See list of Department Chairs on the Personnel page.

Career Opportunities

The Law Enforcement program prepares students for careers in law enforcement as a police officers, desk officer, bailiff or corrections officer. Additionally, students could work as criminal investigators, detectives, police agencies, or in correction and judicial facilities.

Program Description

The Law Enforcement program teaches students an in-depth analysis of the three (3) components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathetic awareness of cultural diversity.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption to complete the Criminal Justice courses. Admission into the Law Enforcement Academy courses requires a student to file an application with the PLEA Department Chair and meet specific guidelines prior to admission into the program (such as state statutory requirements for background checks). You may enroll in PLEA courses only if you are admitted into the program.

Graduation Requirements:

In addition to program requirements for this program, you must complete ENG 121, COM 115, MAT 107 and six (6) credits of social and behavioral science courses.

Total Credits: 37

Certificate Requirements

LEA 101 - Basic Police Academy I

Credit(s): 6

Lecture Hour(s): 6

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.

LEA 102 - Basic Police Academy II

Credit(s): 12

Lecture Hour(s): 12

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge 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.

LEA 103 - Basic Law Enforcement Academy III

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Enhances the standards established by the POST board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a police officer. Emphasis will be on expanding the POST curriculum to create a unique learning experience.

LEA 105 - Basic Law

Credit(s): 8

Lecture Hour(s): 8

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.

LEA 106 - Arrest Control Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 107 - Law Enforcement Driving

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 108 - Firearms

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

Library Technician Certificate

CIP 25.0301

See list of Department Chairs on the Personnel page.

Career Opportunities

The LTN program prepares you for a career in a variety of information environments including academic libraries, public libraries, school media centers, special libraries – corporate, correctional, law and medical – and other information services. In rural settings, the Library/Media Technician manages the library/media center and is the person responsible for providing additional library services, such as maintaining the computerized catalog and library webpage, conducting patron orientation and directing library programs.

Program Description

This program offers instruction in a variety of library functions including collection management (selecting and acquiring materials); cataloging; processing and repair of library materials; circulating and shelving materials; helping patrons with reference, readers' advisory and resource sharing services; and managing a small library or media center. We also train you in the nontechnical skills you need to be a successful library technician: customer service, listening, speaking, writing, attention to detail and working as a member of a team.

Program Requirements

Entrance Requirements:

The LTN program is designed for the student who, because of time or distance constraints, is looking for an online degree. The courses use the Desire2Learn platform.

If you plan to transfer to a bachelor's level program, consult with your advisor to determine the transferability of courses.

Total Credits: 30

Certificate Requirements

General Education Requirements (12 Credits)

- Social and Behavioral Sciences OR Humanities **Credit(s): 3**

Communications (6 Credits)

Select one:

- (ENG 121 and COM 115) or COM 125

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics (3 Credits)

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Core Curriculum Requirements (18 Credits)

LTN 101 - Introduction to Library Services

Credit(s): 3

Lecture Hour(s): 3

Introduces libraries and their procedures through research, vocabulary, readings and assignments. Identifies current tools such as wikis, blogs, podcasting, interactive web pages and other online services. Presents resources for library technicians.

LTN 110 - Selection and Acquisitions

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the tools, vendors, jobbers and approval plans that comprise the selection process. In addition, the student is introduced to acquisitions policy. The student engages in a course project whereby he/she applies a collection evaluation methodology to a section of a library collection and locates and recommends replacement titles.

LTN 115 - Library Circulation

Credit(s): 3

Lecture Hour(s): 3

Discusses customer service and circulation issues and procedures. Students will learn the role of customer service and the effects that automation has had on the circulation function of the library.

LTN 205 - Introduction to Cataloging & Classification

Credit(s): 3

Lecture Hour(s): 3

Introduces the library organization, how to use Dewey and Sears subject headings, elements of cataloging, practice in the use of Dewey and the Library of Congress classification systems, use of cutter tables, subject classification, accession numbers, and bar codes. Basic philosophy, procedures, tools and techniques for library routines are emphasized.

LTN 210 - Reference Materials

Credit(s): 3

Lecture Hour(s): 3

Teaches how to select reference materials, how to use at least 100 reference resources, the reference interview, and the role of resource sharing (interlibrary loan) in reference. Students will prepare a bibliography of the 100 titles they would want in their reference collection and 10 online sources they find useful.

LTN 220 - Library/Media Center Management & Public Relations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of LTN 101.

Includes budget preparation, how to work with staff, the public, and administrators, and the use of statistics.

Machining Technology, Inspection Certificate

See list of Department Chairs on the Personnel page.

Total Credits: 9

Certificate Requirements

MAC 250 - Advanced Inspection Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of quality control, TQM and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

EGT 205 - Geometric Dimension & Tolerance

Credit(s): 3

Lecture Hour(s): 3

Focuses on interpreting and applying geometric dimensioning and tolerancing (GDT) in machining or drafting per the ASME Y14.5 specification. Demonstrate and distinguish GDT through math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, run-out and location. Students examine and interpret the generation of a working drawing and how they are developed as a team effort between design, drafting, manufacturing and quality control.

Manicurist Certificate

CIP 12.0410

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Manicurist certificate – This certificate program provides training in nail care. Instruction is provided in manicuring, pedicure, nail design extensions and nail artistry.

Total Credits: 20

Certificate Requirements

Core Requirements (20 Credits)

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

NAT 108 - Introduction of Manicuring/Pedicures/Artificial Nails

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 110 - Introduction to Manicures & Pedicures

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction in the proper use of implements used in manicures and pedicures. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures and pedicures is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 111 - Intermediate Manicures & Pedicures

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures, nail art and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service. Proper sanitation and sterilization as it pertains to all aspect of manicures, pedicures and nail art is taught.

NAT 158 - Intermediate Manicuring/Pedicures/Artificial Nails

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 159 - Intermediate Manicuring/Pedicures/Artificial Nails II

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 208 - Advanced Manicuring/Pedicures/Artificial Nails

Credit(s): 4

Voc/Tech Clinic Hour(s): 8

Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.

NAT 210 - Advanced Manicures & Pedicures

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): NAT 211.

Presents theory and practical application dealing with different types of manicures, pedicures massage techniques and nail art. Theory and practical application of procedures, products, nail shapes and maintenance of the natural nails is

covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

Manual Machining Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 16

Certificate Requirements

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 130 - Conventional Lathe Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Includes calculation of speeds and feeds on various materials, identification and application of various work holding techniques, tool forming, advanced machining practices and applications, and spindle tooling. Students will learn how to calculate and turn tapers using the compound slide or taper attachment, offset work on a four jaw chuck, turning between centers, boring, grooving, finishing, single point threading, knurling, tool grinding, drilling operations, and reaming.

MAC 131 - Milling Machines & Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces vertical milling machines. The operations and applications will consist of using the machine controls, speeds and feeds, spindles, arbors and adapters cutting tools, tool holders, conventional and climb milling applications simple indexing, fixture alignments, work holding methods. Students will become familiar with set-up applications considering offset boring operations, face milling, plain milling, and precision drilling applications. Students will be required to produce parts to a tolerance of +/- .004in. and perform competencies set by manufacturing standards.

MAC 141 - Advanced Machining Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Provides the student the use of various conventional machine tools used in a machine shop environment. The use of engine lathes, horizontal and vertical milling machines, surface grinders, drill presses, pedestal grinders, power cut-off saws and other machine tools commonly used to produce quality machined parts in today 's manufacturing environments. Machining competencies will be stressed and students will be required to produce parts manufactured by local manufacturing companies with the consideration of ISO quality standards.

Medical Assistant Certificate

CIP 51.0801

See list of Department Chairs on the Personnel page.

Career Opportunities

The Medical Assistant Program will prepare the student for a career in medical assisting. Medical assistants can work in a variety of settings – physician offices, outpatient facilities, urgent care centers and other ambulatory health care services. Medical assistants play a vital role in the success of a medical practice and play the role of a liaison between the physician and the patients.

Program Description

The Medical Assistant program will prepare the student to primarily work in the back office of a medical practice, along with teaching some basic front office duties. Students will be taught the clinical tasks of drawing blood, giving injections, performing lab tests, taking patient histories and measuring vital signs. The administrative tasks include scheduling appointments, coding medical information and bookkeeping. Students will serve an internship and prepare for a national certification exam to become a Registered Medical Assistant.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Enrollment in the program is limited. Students must apply for admission to the program prior to the deadline. Students will be notified in writing of conditional acceptance. Clinical sites used during the program require that you successfully complete a background check and drug screen. These need to be completed before final acceptance into the program. Students must also obtain CPR certification and immunization series within the first semester of the program.

Graduation Requirements:

Students must complete all credits and courses listed in the curriculum with a "C" grade or higher.

Total Credits: 40

Certificate Requirements

Semester 1 - Fall

HPR 106 - Law & Ethics for Health Professions

Credit(s): 2

Lecture Hour(s): 2

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

MAP 110 - Medical Office Administration

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the administrative duties specifically used in medical offices.

MOT 125 - Basic Medical Sciences I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required.

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the immune, musculoskeletal, and digestive systems. A discussion of pediatric implications as they relate to clinical physiology will also be covered. The scope of the material is limited to the medical office technology personnel.

MOT 133 - Basic Medical Sciences II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the cardiovascular, respiratory, integumentary, and senses systems. The scope of the material is limited for the medical office technology personnel.

MOT 135 - Basic Medical Sciences III

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the renal, reproductive, neurological, and endocrine systems. The scope of material is limited for the medical office technology personnel.

Semester 2 - Spring

HPR 119 - Computers in Healthcare

Credit(s): 2

Lecture Hour(s): 2

Introduces basic computer technology, file management, and PC system components as used in Health Care settings. Provides an overview of word processing, spreadsheets, and personal information management software. Introduces the Electronic Health Record (EHR), its content, EHR software, EHR management, patient management and scheduling, and privacy and security of the EHR.

MAP 120 - Medical Office Financial Management

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Covers the practical uses of accounts and records with emphasis on accounting principles and analysis for use in a medical office. This course introduces outpatient coding with an ultimate goal to present a clear picture of medical procedures and services performed, such as Current Procedural Terminology (CPT) codes, correlating the diagnosis, symptom, complaint or condition, and International Classifications of Diseases (ICD) codes, thus establishing the medical necessity required for third-party reimbursement.

MAP 138 - Medical Assisting Laboratory

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the student to basic routine laboratory skills and techniques for collection, handling and examination of laboratory specimens often encountered in the ambulatory care setting.

MAP 140 - Medical Assisting Clinical Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Provides hands-on experience with clinical skills required in medical offices. Delivers theory and skills presentations allowing for students to properly demonstrate techniques for a variety of medical needs.

MAP 150 - Pharmacology for Medical Assistants

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Provides an overview of pharmacology language, abbreviations, systems of measurement and conversions. The Controlled Substances Act, prescriptions, forms of medications, patient care applications, drug classifications/interactions, and safety in drug therapy and patient care are presented. Information regarding the measurement of medications, dosage calculations, routes of administration and commonly prescribed drugs in the medical office is provided.

Semester 3 - Summer

HPR 108 - Dietary Nutrition

Credit(s): 1

Lecture Hour(s): 1

Studies the basic nutritional principles in clinical practice in health care. The course will cover factors which influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states.

MAP 183 - Medical Assistant Internship

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Department Chair Approval.

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. The student assists with a variety of business and clinical procedures. Positions are nonpaid. Student must have permission by program coordinator to begin Internship.

MAP 189 - Review for Medical Assistant National Exam

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares the candidate sitting for the National Registration/Certification examination for Medical Assistant through review and practice. These examinations are given with the intent of evaluating the competency of entry-level practitioners in Medical Assisting, supporting quality care in the office or clinic.

Multi-Process Fast Track Certificate

See list of Department Chairs on the Personnel page.

This Welding certificate offers training in Shielded Metal Arc and Gas Tungsten Arc Welding. Become familiar with cutting processes used in the field. Students can taking qualification exams at the end of the semester in various welding processes. This certificate is a fast track option. It can be completed in one semester. It is offered in the fall and spring semesters (and sometimes the summer semester).

Total Credits: 21

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

WEL 141 - Introduction to Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers welding in the 1F and 1G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel; adjusting parameters and operating equipment, utilizing the various filler materials for each process. Layout procedures will be introduced and practiced, along with welding safety, industry standard soft skills and AWS filler metal classification and selection. Basic math, measuring, computer skills and blueprint reading will be introduced.

WEL 142 - Basic Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 141.

Covers welding in the 2F and 2G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting parameters and operating equipment utilizing the various filler materials for each process. Layout procedures, safety, blueprint reading skills and weld symbol identification will be practiced during this course.

WEL 143 - Intermediate Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 142.

Covers welding in the 3FU and 3GU positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting operating parameters and operating equipment utilizing the various filler materials for each process. Basic metallurgy will be presented.

WEL 144 - Advanced Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 143.

Covers welding in the 4F and 4G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting operating parameters and operating equipment utilizing the various filler materials for each process. Resume writing and interview skills will be presented.

and practiced. Advanced blueprint reading will be focused on including study of complex print reading and weld symbols.

WEL 150 - AWS Qualification Testing

Credit(s): 1

Lecture Hour(s): 1

Provides students with the opportunity to complete a welding qualification test in accordance with an American Welding Society code or specification.

Paramedic Option Certificate

CIP 51.0904

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-199, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-199. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 49

Certificate Requirements

General Education Requirements (4 Credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

Core Curriculum Requirements

EMS 225 - Fundamentals of Paramedic Practice

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 226.

Introduces the paramedic student to the advanced practice of prehospital care. This course covers professional behavior, medical ethics, legal issues, patient assessment, therapeutic communication, clinical decision making, and basic and advanced airway management. This course discusses EMS 's role in the healthcare continuum, professional communication, patient care documentation, IV fluid therapy and resuscitation, and the application of evidence based medicine. A brief overview of human anatomy, physiology and pathophysiology is included.

EMS 226 - Fundamentals of Paramedic Practice - Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 225, or have successfully completed EMS 225.

Complete all pre-course screening requirements, including drug test and criminal background check. Instructor approval. Serves as the lab experience to coincide with EMS 225 topics.

EMS 227 - Paramedic Special Considerations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to concepts in assessing and meeting the emergency care needs of the neonate, pediatric, geriatric and special needs patient. This course focuses on epidemiology, pathophysiology, assessment and treatment of these patient groups. Common medical and traumatic presentations are addressed. Relevant psychosocial and ethno cultural concepts and legal and ethical implications are integrated throughout.

EMS 228 - Paramedic Special Considerations Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 227.

Teaches the skills necessary for the paramedic to effectively assess and treat neonatal, pediatric, geriatric and special needs patients utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Special Considerations.

EMS 229 - Paramedic Pharmacology

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 230.

Introduces the paramedic student to advanced emergency pharmacology, pharmacokinetics and pharmacodynamics. This course will include laws affecting the use and distribution of medications, medication dosing, clinical calculations, routes of administration and discussion of common medication classifications to include indications, contraindications and side effects.

EMS 230 - Paramedic Pharmacology Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 229, or have successfully completed EMS 229.

Teaches the skills necessary for the paramedic to safely and effectively administer emergency medications. Serves as the companion course to Paramedic Pharmacology.

EMS 231 - Paramedic Cardiology

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to cardiovascular emergencies and the care of patients presenting with cardiovascular

emergencies. Topics will include assessment of the cardiovascular system, ECG acquisition and interpretation both single lead and 12 lead, pathophysiology of cardiovascular disease and treatments indicated for a given disease.

EMS 232 - Paramedic Cardiology Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 231.

Teaches the skills necessary for the paramedic to effectively assess and treat patients presenting with cardiovascular emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Cardiology.

EMS 233 - Paramedic Medical Emergencies

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 234.

Expands on the paramedic student's knowledge of medical emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan. This course will cover principles of epidemiology and pathophysiology related to common medical emergencies including: neurological, abdominal and gastrointestinal disorders, immunological, infectious diseases, endocrine disorders, psychiatric disorders, toxicological, respiratory, hematological, genitourinary, gynecological, nontraumatic musculoskeletal disorders and diseases of the eyes, ears, nose and throat.

EMS 234 - Paramedic Medical Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 233.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of medical emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Medical Emergencies.

EMS 235 - Paramedic Trauma Emergencies

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Expands on the paramedic student's knowledge of trauma emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan for an acutely injured patient. The course will provide an in depth evaluation of trauma to include: categorization of trauma patients, incidence of trauma, trauma systems, types of injury, trauma assessment, documentation in trauma, trauma scoring scales, trauma center designations and transfer of patients.

EMS 236 - Paramedic Trauma Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 235.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of traumatic emergencies utilizing skills and simulation scenarios. Serves as the companion lab course for Paramedic Trauma Emergencies.

EMS 237 - Paramedic Internship Preparatory

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): EMS 225, EMS 227, EMS 229, EMS 231, EMS 233, EMS 235

Reviews concepts and techniques used in the prehospital setting.

EMS 280 - Paramedic Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 237.

Provides the first course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a member of an ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

EMS 281 - Paramedic Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 280.

Provides the second course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a leader of the ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

Pharmacy Technician Certificate

CIP 51.0805

See list of Department Chairs on the Personnel page.

Career Opportunities

This program prepares you to work in a pharmacy setting under the supervision of a licensed pharmacist, performing activities that do not require the professional judgment of a pharmacist. The Colorado Department of Labor and employment estimates pharmacy technicians earn from \$28,301 to \$40,222, with a mean annual salary of \$36,248.

Program Description

This certificate program is offered in one semester (four courses). It provides instruction in basic pharmacy theories and is an important step toward national certification as a pharmacy technician. Learning experiences include lecture, lab and clinical exposure in local pharmacies. To ensure success in this class, you should have a good knowledge of basic algebra and math formulas.

Program Requirements

Entrance Requirements:

Students must apply for admission to the program (through the program coordinator or the administrative assistant for the Health and Public Safety Division). Students are conditionally accepted into the program on a first-come, first-served basis. Students must pass a background check and drug screen to be admitted into the program. Additional requirements must be met prior to placement in a clinical setting. Applications are available May 1 with a deadline for submission of July 15 for the following fall semester. Pharmacy technician certificate will not be offered during the spring semester.

Total Credits: 34

Fall (19 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office

application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

PHT 111 - Orientation to Pharmacy

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission required.

Orients students to the work of pharmacy technicians and the context in which a technician's work is performed. Students learn the concept of pharmaceutical care and the technician's general role in its delivery. The development of new drug products is discussed as well as a variety of issues that touch on attitudes, value and beliefs of success for pharmacy technicians. Students gain an appreciation for the value of obtaining technician certification and the benefits of technicians' active involvement in local, state and national pharmacy organizations.

PHT 115 - Pharmacology I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to program

Presents the fundamentals of pharmacology, the pharmacokinetic phases, and the basic concepts of normal body function. This course examines diseases which impact the various body systems and the drugs used to treat such diseases, emphasizing disease state management and drug therapy.

PHT 235 - Pharmaceutical Calculations and Compounding Techniques

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Program admission required.

Develops the skills necessary for performing calculations in pharmacy practice and the compounding of sterile and nonsterile products. Includes a review of basic mathematical skills. Enables the student to solve problems involving calculations pertinent to the preparations of pharmaceuticals. These skills are put to practical use in the compounding portion of this course. Preparation of sterile products, parenteral admixtures, TPN solutions and chemotherapeutics, using proper aseptic techniques is taught. The safe handling of antineoplastics and other hazardous drug products, as well as special drug storage requirements, is learned. Emphasizes the importance of accuracy, quality and infection control. Use and maintenance of equipment such as laminar flow hoods, auto injectors and pumps is discussed.

Spring (15 credits)

PHT 117 - Communication and Professionalism for Pharmacy Technicians

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to program

Provides fundamental components of theoretical and applied aspects of personal and interpersonal communication related to pharmacy practice. Theoretical aspects include such topics as communication perceptions and barriers, listening, responding, assertiveness and non-verbal communication. Applied aspects include such techniques as role-playing, group discussion and interviewing. This course also examines the methods and practice of interviewing with respect to the roles and functions of both interviewee and interviewer.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

PHT 114 - Computer Skills for Pharmacy Technicians

Credit(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Admission to program.

Introduces 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. This course includes integration of an actual pharmacy operation application to allow hands-on technical experience.

PHT 118 - Pharmacology II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to program

Examines the disease states which impact the various body systems and the drugs used to treat such diseases. This course emphasizes disease state management and drug therapy. Serves as the second part of the two-part presentation of the basic concepts of pharmacology.

PHT 112 - Pharmacy Law and Ethics

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to program.

Introduces 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.

PHT 170 - Pharmacy Clinical: Institutional

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Admission to program

Provides the students with 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. The preceptor, student, and instructor complete evaluations at completion of the rotation.

PHT 171 - Pharmacy Clinical: Community

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Admission to program

Provides the students with hands on experience in a community 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, inventory handling and control, drug distribution, processing of third-party claims, and communication with patients. The preceptor, student, and instructor complete evaluations at the completion of the rotation.

Photovoltaic Panel Installation CER

Program Description

See list of Department Chairs on the Personnel page.

The Industrial Technology Maintenance (ITM) Program prepares students for entry level employment into career paths that include electronics technicians, electrical technicians, semiconductor manufacturing technicians, and field service technicians. The program provides the student with knowledge and essential skills in the complex electro-mechanical systems found in production facilities. The curriculum addresses digital electronics, print reading, motors and controls, programmable logic controllers, and mechanical components. The ITM Program also offers certificates in Solar installation and Green Energy Technologies associated with Industrial Installation and Maintenance.

Core Curriculum Requirements

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ENY 121 - Solar Photovoltaic Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Corequisite(s): ELT 106

Reinforces basic safety principles and provides detailed knowledge of photovoltaic components. Also covered is an overview of site analysis and special purpose tools. Upon successful conclusion of this course the student will be able to select proper components for a photovoltaic system based on regulatory codes and standards and individual component specifications.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ENY 165 - Solar Photovoltaic Field Lab Experience

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Department approval required

Onsite / hands-on training experience for students. Experiences include on-site installations, inspection tours, mock-roof training installations, industry association meetings, field experience workshops.

ELT 280 - Internship

Credit(s): 1-12

Internship Hour(s): 3-36

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 business location and with the direct guidance of the instructor.

ENY 132 - NABCEP Entry Level Prep Class

Credit(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required

Reviews the knowledge needed by the student to permit passing the NABCEP Entry level test. This is an overview class only and is not meant to be a replacement for the actual class.

Police Science Certificate

CIP 43.0107

See list of Department Chairs on the Personnel page.

Career Opportunities

The Law Enforcement program prepares students for careers in law enforcement as a police officers, desk officer, bailiff or corrections officer. Additionally, students could work as criminal investigators, detectives, police agencies, or in correction and judicial facilities.

Program Description

The Law Enforcement program teaches students an in-depth analysis of the three (3) components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathetic awareness of cultural diversity.

Program Requirements

Entrance requirements:

Successful completion of any CCR course or qualifying placement score or exemption to complete the Criminal Justice courses. Admission into the Law Enforcement Academy courses requires a student to file an application with the PLEA Department Chair and meet specific guidelines prior to admission into the program (such as state statutory requirements for background checks). You may enroll in PLEA courses only if you are admitted into the program.

Graduation requirements:

In addition to program requirements for this program, you must complete ENG 121, COM 115, MAT 107 and six (6) credits of social and behavioral science courses.

Total Credits: 37

Certificate Requirements

LEA 101 - Basic Police Academy I

Credit(s): 6

Lecture Hour(s): 6

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.

LEA 102 - Basic Police Academy II

Credit(s): 12

Lecture Hour(s): 12

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge 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.

LEA 103 - Basic Law Enforcement Academy III

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Enhances the standards established by the POST board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a police officer. Emphasis will be on expanding the POST curriculum to create a unique learning experience.

LEA 105 - Basic Law

Credit(s): 8

Lecture Hour(s): 8

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.

LEA 106 - Arrest Control Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 107 - Law Enforcement Driving

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 108 - Firearms

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

Practical Nursing Certificate

Offered only at PCC's Southwest Campus, Mancos

See list of Department Chairs on the Personnel page.

This is a limited-entry program. You must meet specific program entrance requirements in addition to the PCC admission requirements. Students must complete general education requirements with a "C" or higher (minimum GPA 2.5) to be admitted to the Practical Nurse program. Students who complete the departmental application process will have their qualifications reviewed by the program's admission committee.

General Education (7 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

Core Requirements (36 credits)

Semester 1 - Spring (18 credits)

NUR 101 - Pharmacology Calculations

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Prepares nurse to provide safe, patient-centered nursing care related to dosage calculations within the respective scope of practice. This course introduces critical thinking applied to dosage calculations and communication used when interacting with patients and members of the healthcare team related to various aspects of safe administration of medications. Information technology used to document medications administered and patient technology used to deliver medications are also practiced.

NUR 102 - Alterations in Adult Health I

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to Practical Nurse Program.

Provides acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to diverse adult patients experiencing common health alterations requiring medical/surgical interventions. The course introduces Practical Nursing and incorporates the legal and ethical responsibilities of the Practical Nurse.

NUR 105 - Practical Nursing Arts and Skills

Credit(s): 6

Lecture Hour(s): 3

Vocational Lab Hour(s): 9

Prerequisite(s): Admission to Practical Nurse Program.

Employs basic nursing theory and applies that theory and theory from other co-requisite nursing courses to the performance of nursing skills. Communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care are applied to the care of patients across the lifespan with stable and predictable outcomes. The course applies guidelines related to the professional, legal, and ethical scope of practice of the Practical Nurse, including demonstrating safe performance of all psychomotor skills.

NUR 110 - Pharmacology Practical Nursing

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to Practical Nurse Program.

Categorizes basic principles of pharmacology, including major drug classifications using prototype drugs, principles of medication administration including best practices for safe, quality, and patient-centered care. Discusses the legal and ethical responsibilities of the Practical Nurse related to medication administration. Application of this content is used throughout the program nursing courses.

NUR 170 - Clinical I

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Practical Nursing Program.

Offers the clinical practicum to apply the related nursing theory.

NUR 171 - Clinical II

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing Program.

Offers the clinical practicum to apply the related nursing theory.

Semester 2 - Fall (18 credits)

NUR 104 - Alterations in Adult Health II

Credit(s): 5

Lecture Hour(s): 4.50

Vocational Lab Hour(s): 1.50

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Apply and expand the knowledge and skills learned in Adult Health I to provide acquisition of basic nursing theory, communication, collaboration and critical thinking necessary for safe, patient-centered nursing care for diverse adult patients with conditions that are stable and predictable. The course focuses on care of patients experiencing common health alterations requiring medical/ surgical interventions. The course incorporates legal and ethical responsibilities of the Practical Nurse in the care of adults.

NUR 103 - Basic Assessment for the Pn

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Provides the theoretical knowledge and psychomotor skills used by the Practical Nurse performing a basic assessment of health status of stable adult patients with predictable outcomes, including collecting, reporting, and recording objective/subjective data, observing conditions or changes in condition, and differentiating normal from abnormal findings. Principles of therapeutic communication and patient teaching are included. Includes practice collecting basic assessment data in the nursing skills laboratory.

NUR 115 - Basic Concepts of Mental Health Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies knowledge of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to diverse patients at various levels of mental health promotion and mental illness management. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of patients with mental health issues.

NUR 111 - Advancement into Practical Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Demonstrates the roles and responsibilities of the Practical Nurse including scope of practice, supervision, assignment, and leadership skills. Emphasis on accountability, lifelong learning, perspectives in healthcare, and career and job readiness skills for entry level nursing practice.

NUR 113 - Basic Concepts of Maternal-Newborn Nursing

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies and expands the knowledge and skills learned in the previous and concurrent courses to provide the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to childbearing families. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of childbearing families.

NUR 114 - Basic Concepts of Pediatric Nursing

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies and expands on the knowledge and skills learned in the previous and concurrent courses to provide for the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to children and their families. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of children.

NUR 116 - Basic Concepts of Geriatric Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Applies and expands the knowledge and skills learned in the previous and concurrent courses to provide for the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to older adults. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of older adults.

NUR 172 - Clinical III

Credit(s): 3

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Offers the clinical practicum to apply the related nursing theory.

NUR 173 - Clinical III

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Offers the clinical practicum to apply the related nursing theory.

Production Technician Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

CERTIFICATE IS UNDER REVIEW

Total Credits: 20

Certificate Requirements

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

MTE 105 - Safety Manufacturing Environment

Credit(s): 1

Lecture Hour(s): 1

Introduces Occupational Safety and Health Administration (OSHA) federal and state regulations, industrial practices, and accident investigation techniques; including topics such as hazard communication standards, lockout/tagout procedures, eye safety, lifting techniques, electrical safety, stored energy safety, Personal Protective Equipment (PPE), and safety program development and monitoring.

MTE 110 - Applied Communication and Teamwork in Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the student with an in-depth focus on the fundamental concepts and approaches required by industry to establish strong comprehensive and recognized skills in the areas of critical thinking, emotional intelligence, team dynamics, leadership roles, conflict resolution and results-oriented communication skills. This course is taught from a contextualized format.

MTE 120 - Manufacturing Processes

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the different methods, tools, and machines which are used to manufacture industrial and consumer products.

MTE 175-177 - Special Topics

Credit(s): 0-12

Provides student with a vehicle to pursue in-depth exploration of a special topic of interest.

Professional Communication Certificate

Dr. Jeffrey Alexander, Dean of Arts and Sciences

See list of Department Chairs on the Personnel page.

Career Opportunities

The Certificate of Professional Communication program prepares students for careers in management, human resources, nonprofit organizations, marketing, public relations and recruitment, as well as workplace advancement.

Program Description

The Certificate of Professional Communication program teaches students to write and speak to diverse publics, engage in critical thinking and problem-solving, work as part of a team and employ one-on-one conflict resolution strategies.

The curriculum is designed to sharpen students' verbal and written communication abilities for the best practices of being part of a 21st-century workplace.

Disclaimer

The Certificate of Professional Communication will not appear as a certificate on official college transcripts. Courses taken toward the Certificate may apply to other programs on a degree-by-degree basis.

Program Requirements

Entrance Requirements:

Placement into ENG 121 **or** successful completion of any CCR course with a grade of "C"/"S" **or** higher.

Graduation Requirements:

Successful completion of COM 289 - Capstone.

Total Credits: 17

Certificate Requirements

Core Requirements (17 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

or

COM 262 - Communicating with Impossible People

Credit(s): 1

Lecture Hour(s): 1

Introduces participants to the concepts regarding communication with "impossible" people and techniques to deal with them more effectively. Emphasizes active participation in skill-building activities.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 268 - Problem Solving

Credit(s): 1

Lecture Hour(s): 1

Focuses on solving problems in our personal and professional lives and developing the ability to think and act creatively in responding to a variety of situations. Introduces several different perspectives for group and individual problem solving and explores real situations and simulations.

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

COM 289 - Capstone

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Must Have nine credits completed with a grade of "C" or higher towards the Certificate of Professional Communication or approval of the English & communication Department Chair.

Provides a demonstrated culmination of learning within a given program of study.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Psychiatric Technician Certificate

CIP 51.1502

See list of Department Chairs on the Personnel page.

Program Description

This program teaches you to use basic patient care and psychiatric principles to interact with and care for clients in a therapeutic manner and monitor treatment modalities. You will learn to perform basic nursing skills, administer medications, conduct one-to-one relationship development, and participate in group therapy.

The Psychiatric Technician program has a selective admissions process. The program application and requirements are available in the Nursing office or at Pueblo Community College Psych Tech from January 1 – August 15. All Nursing Division Programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

The Psychiatric Technician Certificate Program provides you with knowledge and skills for employment as a psychiatric caregiver in health settings.

Total Credits: 34.5

Summer - 7

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement

and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

¹ Courses must be successfully completed to continue with the program

² Course must be completed within 7 years of a possible start

Fall - 15.5

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

PTE 110 - Intro to Behavioral Health Care and Wellness

Credit(s): 3

Lecture Hour(s): 3

Explores basic principles of behavioral health and wellness care in behavioral health settings. This course develops interpersonal and technical skills while working with clients in psychiatric care settings.

PTE 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

PTE 111 - Essential Concepts of Care

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program admission required

Identifies core concepts including role, function, and critical thinking skills needed in psychiatry. Examines medications and treatments for common and special mental disorders population. Enables the student to understand mental illness as a continuum.

PTE 115 - Core Concepts for Advanced Psychiatric Technician

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program admission required.

Introduces the concepts of nursing process, critical thinking, function, role, and responsibility of a psychiatric technician. Reviews medication administration, parenteral administration, and drug calculation.

Spring - 12

PTE 120 - Application of Behavioral Health Care & Wellness

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): PTE 110

Explores basic etiology, symptoms, and interventions for common behavioral and mental health disorders. Provides the opportunity for students to experience the milieu of a behavioral health care setting while providing basic care to clients experiencing common behavioral and mental health issues.

PTE 117 - Theoretical Concepts of Psychiatric Care II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): PTE 110

Explores psychiatric problems common to four (4) special populations: children/adolescents, developmentally disabled individuals, aging persons and forensic clients. The student will learn how to recognize and intervene with problems common to these four groups.

PTE 118 - Psychiatric Management Principles

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 117, PTE 171.

Corequisite(s): PTE 172.

Capstone: Explores principles of psychiatric unit management and professional behaviors in psychiatric care. Self-care issues and job-seeking skills are also discussed.

PTE 171 - Clinical Concepts of Psychiatric Care II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 116 , PTE 170 , or permission of instructor.

Corequisite(s): PTE 117.

Provides clinical application of theory and principles presented in PTE 117 through supervised clinical practice in a psychiatric care setting.

PTE 172 - Psychiatric Management Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 170 , PTE 171.

Corequisite(s): PTE 118.

Synthesizes knowledge from prerequisite courses and provides clinical application of theory presented in PTE 118.

Software Development Certificate

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computers cience, computer networking, and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree Section.

Total Credits: 28

Certificate Requirements

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software

from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CWB 205 - Client-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the client-side programming skills necessary to create dynamic web content using a markup embeddable and procedural scripting language executed on the client web browser.

CWB 208 - Web Application Development: (Development Tool(s))**Credit(s): 3****Vocational Lab Hour(s): 4.5**

Teaches students how to work in the server-side scripting environment. Students learn the basics of application development, and general principles that apply to most development environments. Students develop applications using two different server-side application development tools: PHP Hypertext Preprocessor (PHP), and Cold Fusion. Students also learn key application standards such as source and revision control, coding standards, code optimization and data integrity.

CWB 209 - Web Content Management Systems**Credit(s): 3****Vocational Lab Hour(s): 4.50****Prerequisite(s):** MGD 141

Explores the use of open source Content Management Systems (CMS) to simplify the creation and maintenance of web sites.

OR

CSC 246 - Mobile App Development**Credit(s): 3****Lecture Hour(s): 2****Vocational Lab Hour(s): 1.50****Prerequisite(s):** CSC 119.

Learn how to develop mobile apps using key features and frameworks. Students will learn application design and development using a mobile development platform software development kit (SDK) and corresponding programming language. Main features include: handling UI triggered and touch events, data management, simple and complex UI views, drawing, location and application settings.

Structural Welder Certificate**CIP 48.0508**

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 21

Certificate Requirements

Core Requirements (21 Credits)

WEL 100 - Safety for Welders

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of welding on health and safety.

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

Web Design Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 18

Certificate Requirements

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

Welding Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also

included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 33

Certificate Requirements

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

WEL 100 - Safety for Welders

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of welding on health and safety.

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

or

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

WEL 263 - Applied Metal Properties

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Introduces the study of metal properties, hardness testing, heat treatment, cold working microscopic examination and application of common commercial alloys in industry.

Mini-Certificate

PCC offers the following Certificates that are NOT eligible for federal or state financial aid funds. For more information, please contact the appropriate department chairperson.

Advanced Emergency Medical Technician

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an Emergency Medical Technician at either the Basic, Intermediate, or Paramedic level. Career opportunities include ambulance service, fire service, tactical EMS, critical care transport, and emergency department technician. If you graduate with an AAS degree, you have additional career opportunities in administration and management in the pre-hospital field.

Program Requirements

Entrance Requirements

To enroll in the EMT, EMT-Intermediate, or Paramedic programs, you must be at least 18 years of age, have all current immunizations, and be able to meet the requirements of the Colorado Department of Public Health and Environment EMTS Division Functional EMT Job Description. For enrollment into the AEMT program you must be a current EMT in Colorado. For the Paramedic program, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all pre-screening examinations, and prerequisites, and obtain department approval.

AEMT Option Requirements

Prerequisite Courses for Program Admission **Credit(s): 10**

EMS 131 - AEMT Fundamentals

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with instruction in EMS systems, communications and documentation, pathophysiology, airway management, and the role of EMS in public health.

EMS 129 - AEMT Pharmacology

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with a basis for making clinical decisions in the pharmacologic management of patients commonly encountered in the pre-hospital setting. Topics include the legal and ethical aspects of pharmacotherapy, roles, responsibilities and techniques associated with medication preparation and administration, the classification and naming of medications, pharmacokinetics, pharmacodynamics, and medication calculations. In addition the mechanism of action, dose, route(s) of administration, therapeutic effects, adverse effects, and therapeutic indications for medications within the Advanced Emergency Medical Technician scope of practice are discussed in detail.

EMS 127 - AEMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to the fundamental knowledge of growth, development and aging considerations in the emergency patient. The student will learn to use assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. These include the obstetric patient, neonatal patient, pediatric patient, geriatric patient and patients with special challenges. Learners will apply this knowledge to patient assessment and the development of a treatment plan in a simulated setting. This course also provides an overview of the principles of safe ground ambulance operations, incident management, multiple casualty incidents, air medical responses, vehicle extrication, hazardous material awareness and terrorism and disaster response. Learners will apply critical thinking skills to ensuring the safety of a scene and a plan for safe patient care and transportation.

EMS 133 - AEMT Medical Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the medical patient. This course provides instruction in the integration of physical exam findings, history findings and pathophysiology when assessing and treating the medical patient. Topics addressed include neurology, immunology, infectious diseases, endocrine disorders, cardiovascular disorders, toxicology, respiratory emergencies, hematology and renal disorders.

EMS 135 - AEMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the trauma patient. The student will learn how to utilize assessment findings to provide basic and selected advanced emergency care and transportation for the trauma patient.

EMS 171 - AEMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Acceptance into the AEMT Program.

Builds on the Advanced Emergency Medical Technician (AEMT) student's fundamental knowledge of patient care in the clinical and field setting. The student will perform patient assessments through physical examination, and patient interviews of health history and current illness. The student will then use those assessment findings to develop and carry out a patient treatment plan. This will include pediatric, geriatric and adult patients with a variety of presentations. The student will also survey each field scene for safety considerations and scene management.

Total Credits: 10

Air Conditioning Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 6

Certificate Requirements

ASE 264 - Introduction Automotive Heating and Air Conditioning

Credit(s): 1

Vocational Lab Hour(s): 1.50

Covers basic operation of heating and air conditioning components. This course meets MLR/AST/MAST requirements.

ASE 265 - Heating and Air Conditioning Systems

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Automatic Transmissions Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 6

Certificate Requirements

ASE 250 - Automatic Transmission/Transaxle Service

Credit(s): 1

Lecture Hour(s): 1

Focuses on practical methods of maintaining, servicing, and performing minor adjustments on an automatic transmission and transaxle. This course meets MLR/AST/MAST requirements.

ASE 251 - Automotive Transmission and Transaxle Repair

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation including removal, installation, and replacement of transmission/transaxle and components. This course meets AST/MAST requirements.

ASE 252 - Advanced Automatic Transmissions/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the diagnosis, repair, and rebuild of automatic transmissions and transaxles including the hydraulic, electronic, and mechanical components. This course meets MAST requirements.

Basic Fire Science Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 9

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 102 - Principles/Emergency Services

Credit(s): 3

Lecture Hour(s): 3

Provides an overview 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; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 109 - Occupational Safety & Health

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout emergency services.

Basic Wildland Firefighter Mini-Certificate

CIP 43.0299

See list of Department Chairs on the Personnel page.

Career Opportunities

The Wildland Firefighter Certificate will prepare students for a career with local and state fire departments and federal land management agencies (US Forest Service, etc.). Additionally, this certificate is designed for individuals with a general interest in wildland fire suppression; volunteer firefighters who would like to expand their knowledge and career opportunities; and currently enrolled students with an interest in supplementing their degrees.

Program Description

The Wildland Firefighter Program will provide students with a solid foundation in theory and application of wildland fire suppression concepts. This certificate will also provide training that exceeds the minimum requirements for prospective wildland firefighters as established by the National Fire Protection Association and the National Wildfire Coordinating Group.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

Successful completion of all course work with a grade of "C" or better.

Total Credits: 3

FSW 100 - S-190 Introduction to Wildland Fire Behavior

Credit(s): 1

Lecture Hour(s): 1

Provides instruction in the primary environmental factors that affect the start and spread of wildfire and recognition of potentially hazardous situations. This course can be taught in conjunction with or prior to FSW 101 - S-130 Firefighting Training.

FSW 101 - S-130 Firefighting Training

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Provides entry-level firefighter skills. A version of the L-180, Human Factors on the Fire line, is included as part of the course. Credit should be issued for S-130.

Beginning Production and Baking Mini-Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 16

Certificate Requirements

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 125 - Introduction to Foods

Credit(s): 4

Vocational Lab Hour(s): 6

Corequisite(s): CUA 101

Provides students with the fundamental principles and practices of a commercial kitchen, including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. Focuses on the fundamental principles and production of stocks, soups, sauces, gravies and thickening agents. Principles of cold food and nonalcoholic beverage preparation and production in a commercial kitchen. Basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Emphasizes the effects of seasonings and cooking methods of vegetable products and basic hot food preparation. Students prepare breakfast orders similar to those ordered in restaurants, with egg cookery and dairy products emphasized.

CUA 145 - Introduction to Baking

Credit(s): 4

Vocational Lab Hour(s): 6

Provides the student with the fundamentals of baking terminology, principles of baking, and the characteristics of the functions of the main ingredients that is used in bakery production. Orients student to use commercial equipment and tools and provides the student with the fundamentals of basic yeast-raised production and quick breads, white bread, rolls, variety grain breads, specialty breads, sweet yeast-raised products and quick bread, fundamentals of basic cake, pie, pastry and cookie production. Enables the student to produce a variety of cakes, pies, pastries, cookies and assorted dessert items in a commercial kitchen.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

- Culinary Electives **Credit(s): 3**

CAD/CAM Mini-Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 10

Certificate Requirements

MAC 243 - Mastercam

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces the concepts of creating basic 2D and 3D Mastercam wireframes, building and manipulating surfaces and solids. The practices and techniques of fixture incorporation, tool pathing, and machine code generation will be discussed. Basic user interfaces and custom interface setup will be covered, as well as common file storage.

MAC 241 - CAD CAM 2D Lab

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Requires students to produce a variety of lab exercises on robotic machinery in conjunction with MAC 240 . Aspects of toolpaths for contour, drill and pocket will be covered. Chaining geometry, setting parameters, and managing cutter compensations will be addressed in both multi-tool programs and remachining operations. Coursework will primarily focus on 2D geometry projects.

CAD 255 - Solidworks/Mechanical

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces parametric feature-based solid modeling 3D concepts to build confidence in 3D thinking and progresses to three-dimensional parameters. The student learns to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models.

CNC Mini-Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 12

Certificate Requirements

MAC 203 - Introduction to CNC Operations

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Introduces basic writing and editing of CNC programs. G&M codes, math, speeds feeds, production processes including basic process controls, simple fixturing, and documentation associated with manufacturing will be covered.

MAC 208 - CNC Operations II

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Further develops skills in writing and editing advanced CNC programs. G&M codes, math, speeds feeds, production processes including multi-part, process controls, fixturing, and documentation associated with manufacturing will be covered.

Construction Technician Basic

CIP 46.0000

See list of Department Chairs on the Personnel page.

Career Opportunities

A program that generally prepares individuals to apply technical knowledge and skills in the building, inspecting, and maintaining of structures and related properties. This includes basic instruction in carpentry, electrical and power installation, building/construction, blueprint reading, plumbing, and other construction-related applications.

Total Credits: 9

Fall or Spring Semester (9 credits)

CAR 103 - Carpentry Basics

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Provides a basic introduction to construction work for all crafts, safety concerns and procedures, and the safety and use of hand and power tools. This course specifically applies to construction work.

CAR 105 - Job Site Layout and Blueprint Reading

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Introduces blueprint reading and how they apply to the construction site. Includes in-depth introduction to site layout (materials and methods).

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 121 - Floor Framing**Credit(s): 1****Lecture Hour(s): 0.25****Vocational Lab Hour(s): 1.12**

Covers framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 122 - Wall Framing**Credit(s): 1****Lecture Hour(s): 0.25****Vocational Lab Hour(s): 1.12**

Focuses on the procedures for laying out and framing walls and ceilings, including roughing-in door and window openings, construction corners and partition Ts, bracing walls and ceilings, and applying sheathing.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 123 - Roof Framing**Credit(s): 1****Lecture Hour(s): 0.25****Vocational Lab Hour(s): 1.12**

Describes the various kinds of roofs and contains instructions for laying out rafters for gable roofs, hip roofs and valley intersections. Coverage includes both stick-built and truss-built roofs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 170 - Clinical: Construction Lab I**Credit(s): 1****Voc/Tech Clinic Hour(s): 2**

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

Cosmetology Barber Crossover

See list of Department Chairs on the Personnel page.

The Barbering Crossover Certificate is designed for Licensed Cosmetologists to learn the remaining skills that Barbers know they can carry a dual license in the State of Colorado. The program includes techniques in men's hair cutting, men's facials, shaving, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on manikins and the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

Total Credits: 3

Students wanting to obtain a Barbering License by completing the Barbering Crossover Certificate will have to have their Cosmetology License.

Core Curriculum Summer Semester (3 credits)

BAR 107 - Introduction to Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 - Intermediate Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 207 - Advanced Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Board license exam.

Dining Service Mini-Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant

management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 16

Certificate Requirements

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 136 - Alcohol and Bartending Management

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 125

Prepares students for the preparation and service of alcoholic beverages. Focuses on mixology procedures, wine and champagne service, purchasing and storage procedures, cost controls, customer relations, legal responsibilities of lounge operations and ServSafe alcohol practices.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

Early Childhood Entry Level Mini-Certificate

CIP 13.1210

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 6

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

or

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations

of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

Choose One Course Listed Below (3 Credits)

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 125 - Science/Math and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Examines 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.

ECE 205 - Nutrition, Health and Safety

Credit(s): 3

Lecture Hour(s): 3

Focuses on nutrition, health and safety as key factors for optimal growth and development of young children. This course includes nutrition knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families for early childhood educators. This course addresses children ages birth through 12 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 226 - Creativity and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Provides an emphasis on encouraging and supporting creative self-expression and problem-solving skills in children. Explores creative learning theories and research. Focuses on developmentally appropriate curriculum strategies in all developmental domains. Addresses ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 256 - Working with Parents, Families, and Community Systems

Credit(s): 3

Lecture Hour(s): 3

Examines 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. Effective activities and resources to support family involvement in the classroom will be created. This course addresses children ages birth through 8 years.

or

ECE 260 - The Exceptional Child

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of critical elements related to educating young children with disabilities or special needs in the early childhood setting. Topics include typical and atypical development; legal requirements; research-based practices related to inclusion; teaming and collaboration; and accommodations and adaptations. This course examines how a disability or special need may impact a young child's learning process. This course addresses children ages birth through 8 years.

Emergency Medical Technician Mini-Certificate

CIP 51.0904

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-I99, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-I99. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 11-12

Emergency Medical Technician

Total Credits: 12

Certificate Requirements

EMS 121 - EMT Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management and patient assessment.

EMS 122 - EMT Medical Emergencies

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121. EMS 170.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history and pathophysiology when assessing and treating the medical patient.

EMS 123 - EMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.

EMS 124 - EMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials and terrorism.

EMS 170 - EMT Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

Advanced Emergency Medical Technician

Total Credits: 11

Certificate Requirements

EMS 127 - AEMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to the fundamental knowledge of growth, development and aging considerations in the emergency patient. The student will learn to use assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. These include the obstetric patient, neonatal patient, pediatric patient, geriatric patient and patients with special challenges. Learners will apply this knowledge to patient assessment and the development of a treatment plan in a simulated setting. This course also provides an overview of the principles of safe ground ambulance operations, incident management, multiple casualty incidents, air medical responses, vehicle extrication, hazardous material awareness and terrorism and disaster response. Learners will apply critical thinking skills to ensuring the safety of a scene and a plan for safe patient care and transportation.

EMS 129 - AEMT Pharmacology

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with a basis for making clinical decisions in the pharmacologic management of patients commonly encountered in the pre-hospital setting. Topics include the legal and ethical aspects of pharmacotherapy, roles, responsibilities and techniques associated with medication preparation and administration, the classification and naming of medications, pharmacokinetics, pharmacodynamics, and medication calculations. In addition the mechanism of action, dose, route(s) of administration, therapeutic effects, adverse effects, and therapeutic indications for medications within the Advanced Emergency Medical Technician scope of practice are discussed in detail.

EMS 131 - AEMT Fundamentals

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with instruction in EMS systems, communications and documentation, pathophysiology, airway management, and the role of EMS in public health.

EMS 133 - AEMT Medical Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the medical patient. This course provides instruction in the integration of physical exam findings, history findings and pathophysiology when assessing and treating the medical patient. Topics addressed include neurology, immunology, infectious diseases, endocrine disorders, cardiovascular disorders, toxicology, respiratory emergencies, hematology and renal disorders.

EMS 135 - AEMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the trauma patient. The student will learn how to utilize assessment findings to provide basic and selected advanced emergency care and transportation for the trauma patient.

EMS 171 - AEMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Acceptance into the AEMT Program.

Builds on the Advanced Emergency Medical Technician (AEMT) student's fundamental knowledge of patient care in the clinical and field setting. The student will perform patient assessments through physical examination, and patient interviews of health history and current illness. The student will then use those assessment findings to develop and

carry out a patient treatment plan. This will include pediatric, geriatric and adult patients with a variety of presentations. The student will also survey each field scene for safety considerations and scene management.

Engine and Electrical Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 16

Certificate Requirements

ASE 120 - Basic Auto Electricity

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Introduces vehicle electricity, basic electrical theory, circuit designs, and wiring methods. This course focuses on multimeter usage and wiring diagrams. This course meets MLR/AST/MAST requirements.

ASE 123 - Starting and Charging System

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of a vehicle battery, testing, service, and repair of starting and charging systems including voltage testing, draw testing. This course meets MLR/AST/MAST program requirements.

ASE 130 - General Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers how to perform basic engine diagnosis to determine condition of engine including engine support systems. This course meets MLR/AST/MAST requirements.

ASE 132 - Ignition System Diagnosis and Repair

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems.

ASE 161 - Engine Repair & Rebuild

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the disassembly, diagnosis and reassembly of the automotive engine. Topics include the diagnostic and repair procedures for the engine block and head assemblies.

ASE 162 - Automotive Engine Repair

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers engine sealing requirements and repair procedures including engine fasteners, bolt torque, repair of fasteners, cooling system, and basic engine maintenance. This course meets AST/MAST requirements.

ASE 260 - Advanced Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors related to customer vehicles.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Fire Investigator I Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 9

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 205 - Fire Investigation I

Credit(s): 3

Lecture Hour(s): 3

Provides the student with the 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 firesetter, and types of fire causes.

FST 251 - Legal Aspects of Fire Service

Credit(s): 3

Lecture Hour(s): 3

Introduces the federal, state and local laws that regulate emergency services, national standards influencing emergency service, standard of care, tort, liability, and a review of relevant court cases.

FST 252 - Fire Investigation II

Credit(s): 3

Lecture Hour(s): 3

Provides the student with advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.

Fire Officer I Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course.

Total Credits: 12

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 201 - Instructional Methodology

Credit(s): 3

Lecture Hour(s): 3

Identifies the 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. Fire Instructor I State Certification is possible.

FST 206 - Fire Co Superv and Leadership

Credit(s): 3

Lecture Hour(s): 3

Addresses the requisite knowledge and skills required to perform at level 1 as identified in National Fire Protection Association (NFPA) 1021, Fire Officer Professional Qualifications. Areas of focus include: fire department organization, company officer traits, roles and responsibilities, communications practices, administrative functions, safety, health and wellness, training, fire prevention, human resources management, and incident management and operations. The course prepares the learner for the Colorado Fire Officer I State Exams and JPR evaluations.

FST 253 - NIMS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): FST 202.

Focuses on the National Incident Management System, including fire ground management and resource management. Multiagency coordination systems are discussed; organization preparedness for large scale emergencies, communication and information are addressed. The course concludes with a review of the National Response Plan.

FST 255 - Fire Service Management

Credit(s): 3

Lecture Hour(s): 3

Serves as the basic management course for present and potential members of the fire and emergency service professions. The course introduces the student to current fire service management practices, challenges, and real-world applications from the fire officer's point of view. The course addresses decision-making, problem solving, necessary

communication skills, conflict resolution, effective leadership skills, as well as the role of the fire service manager in supervising personnel and programs.

Fire Prevention & Public Education Mini-Certificate

CIP 43.0203

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course.

Total Credits: 14

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 106 - Fire Prevention

Credit(s): 3

Lecture Hour(s): 3

Provides 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.

FST 150 - Introduction to Fire Prevention Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on conducting prevention and education needs assessment, targeting audiences; development and delivery of prevention and education programs. Includes methods of conducting fire prevention and safety inspections.

FST 204 - Principles of Code Enforcement

Credit(s): 3

Lecture Hour(s): 3

To provide the students with the fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program.

FST 208 - Fire Plans Review and Acceptance Testing

Credit(s): 2

Lecture Hour(s): 2

Instructs the student on how to review building plans submitted to a fire department, acceptance testing procedures, implementation of a fire inspection program, and how to deal effectively with the public for fire prevention and education activities.

FST 209 - Fire Protection Systems

Credit(s): 3

Lecture Hour(s): 3

Provides information relating to the 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.

Firefighter Academy Structural Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to

structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 16

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 160 - Candidate Physical Abilities Test Prep

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prepares students for the CPAT test and other related fitness testing for entry level firefighters. The course will focus on aerobics and strength training to assist students in passing a CPAT test or any related fitness entry level test. Students will also be trained on how to use various firefighting tools as they pertain to how the tools will be used in the CPAT or other related entry-level fitness test.

FST 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Firefighter I Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 12

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

Fuels and Emissions Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 14

Certificate Requirements

ASE 134 - Automotive Fuel and Emissions Systems I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive fuel emission control systems, filter systems, and spark plugs. This course also includes maintenance to Diesel Exhaust Fluid (DEF) systems.

ASE 221 - Auto/Diesel Body Electrical

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

ASE 233 - Auto Fuel Injection and Emissions Systems II

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

ASE 236 - Advanced Drivability Diagnosis/Repair

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the inspection, testing and repair of typical computerized engine control systems on customer vehicles.

Hairstylist Barber Crossover

See list of Department Chairs on the Personnel page.

The Barbering Crossover Certificate is designed for Licensed Hairstylists to learn the remaining skills that Barbers know they can carry a dual license in the State of Colorado. The program includes techniques in men's hair cutting, men's facials, shaving, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on manikins and the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

Total Credits: 6

Students wanting to obtain a Barbering License by completing the Barbering Crossover Certificate will have to have already obtained their Hairstylist License.

Core Curriculum Summer Semester (6 credits)

BAR 107 - Introduction to Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 - Intermediate Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 207 - Advanced Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Board license exam.

BAR 166 - Introduction to Facial Massages & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes basic understanding of facial massage manipulations and the study of skin in both practical and theory applications. Covers the benefits derived from proper facial massage and a good skin care routine.

BAR 167 - Intermediate Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on practical application dealing with anatomy, skin disorders, skin types and facial shapes. Students help patrons select proper skin care treatments

BAR 266 - Advanced Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes anatomy, skin disorders, skin types and facial shapes. Students guide patrons on selection of proper skin care treatments. Covers student preparation for State Board licensing examination on theory and practical procedures.

High Pressure Pipe Welder Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 16

Certificate Requirements

Core Requirements (16 Credits)

WEL 239 - 2G-Horizontal Pipe A.S.M.E.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G Horizontal position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 241 - 5G-Vertical Up A.S.M.E.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 239.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical up position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 242 - 6G-45 All Sizes Pipe

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 241.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° Uphill position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 243 - Testing All Sizes Pipe

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Testing with different sizes of pipe to the American Petroleum Institute Pipe Code and American Society of Mechanical Engineers codes in all positions 2G, 5G, 6G with 2 3/8-inch pipe and 2-inch pipe.

Industrial Technology Maintenance Level II Mini-Certificate

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The Industrial Technology Maintenance Level Two Certificate provides advanced technical skills as students pursue careers as an electronics technician, an electro-mechanical technician, a semiconductor manufacturing technician, or an electro-mechanical field services technician. Students are encouraged to obtain an AAS degree for supervisory positions.

Total Credits: 16

Certificate Requirements

Fall Semester

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 259 - Advanced Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 258.

Serves as the second in a two-course sequence and covers advanced topics and applications for programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes advanced programming, diagnostics, Human Machine Interfaces (HMIs), introduction to automation networking and system integration. Incorporates lab and project activities that address designing, operating, monitoring, programming, analyzing, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

Infant Toddler Supervisor Mini-Certificate

CIP 13.1210

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 12

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

Intermediate Production Mini-Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 16

Certificate Requirements

CUA 129 - Center of the Plate

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 125

Enables the student to plan and prepare a variety of complete meals in a commercial kitchen, focusing on center of the plate entrees including meat, poultry, seafood and vegetarian items. Meat, poultry and seafood handling and preparation, including basic forms and cuts, principles used for selecting products and appropriate cooking methods are emphasized. Vegetarian entrees are also covered, including methods for preparation and cooking of various types of potatoes, rice, legumes, pastas, casseroles and grain products, with special attention given to complimentary proteins.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

CUA 236 - Advanced Baking

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 101, CUA 145

Provides students the opportunity to refine their baking skills in the areas of desserts, yeast breads, garnishing and presentation of baked products. Enables the student to bake, garnish and present a variety of baked goods. These products are prepared and displayed for the public in various locations in the college.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

- Electives **Credit(s): 3**

Introduction to Agriculture

A general program that focuses on modern business and economic principles involved in the organization, operation, and management of agricultural enterprises.

Total Credits: 9

Core Curriculum Requirements (9 credits)

AGB 102 - Foundations of Agri-Business

Credit(s): 3

Lecture Hour(s): 3

Focuses on the foundational aspects of the primary agriculture business areas including economics, management, marketing, sales and finance in an applied manner. Current events in agriculture are discussed with emphasis on application to agribusiness.

ASC 100 - Animal Sciences

Credit(s): 3

Lecture Hour(s): 3

Covers the basic fundamentals of livestock production including the principles of nutrition, reproduction, breeding, genetics, health, and physiology of cattle, sheep, swine, horses, and other farm species. Trends and issues in animal science and animal agriculture are also discussed in this course.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

Introduction to Media Communications Mini-Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 15

Certificate Requirements

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 112 - Adobe Illustrator I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Illustrator as an illustration, design and vector drawing tool. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design. Course competencies and outline follow those set by the Adobe Certified Associate exam in Visual Communication using Adobe Illustrator.

MGD 113 - Quark Xpress

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces students to QuarkXPress, a digital page layout tool. Students learn how to assemble, organize, manipulate and manage text and graphics to produce a high-quality publication. Class discussions and independent projects supplement hands-on classroom work.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

Leadership Studies Mini-Certificate

CIP 52.0201

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS and Certificate programs prepare you for entry level positions in marketing, management or sales; they also give you the skills you need to open your own business.

Program Description

Prepares students for lives of learning, leadership, and service; and designed to enhance and explore leadership potential through curricular design that includes academic courses, seminars, and community service opportunities. The Leadership certificate will verify student's leadership education and training for potential transfer colleges and employers. By obtaining a PCC leadership certificate, students should be able to demonstrate the following: 1.) Personal leadership development. 2.) Leadership skills (communication, motivation, team building, etc.). 3.) Critical thinking. 4.) Leadership theory. 5). Civic engagement. 6). Appreciation for diversity.

Total Credits: 12

Certificate Requirements

Leadership Certificate Requirements (9 Credits)

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

MAN 224 - Leadership

Credit(s): 3

Lecture Hour(s): 3

Focuses on the leadership skills for contemporary organizations. Covers development and communication a shared vision to motivate and empower employees to manage conflict, to negotiate, and to develop teams.

PSV 230 - Introduction to Civic Leadership

Credit(s): 3

Lecture Hour(s): 3

Enables the student to develop a critical understanding of public leadership through the study of pertinent models, theories and research.

Elective Courses (3 Credits)

(Select 3 credit hours)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 265 - Psychology of Personality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Investigates the major contemporary theories of personality. Covers psychodynamic, behavioral, cognitive-social learning, humanistic, trait and, optionally, neurobiological, existential and/or Eastern perspectives. The underlying assumptions and research support for these theories are appraised. Enables the student to gain an appreciation of the value of alternative theoretical approaches to this subfield of psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 268 - Organizational Psychology

Credit(s): 3

Lecture Hour(s): 3

Provides a comprehensive study of psychological principles and theories as applied to organizational behavior. Topics include motivation, job satisfaction, conflict supervision, human relations and stress management.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Local Anesthesia and Nitrous Oxide/Oxygen Sedation Mini-Certificate

CIP 51.0602

See list of Department Chairs on the Personnel page.

Career Opportunities

The Dental Hygiene program prepares you for a career in a variety of professional settings. The most familiar setting is the private dental office, where hygienists perform critical services to detect and prevent diseases of the mouth. Beyond the private dental office, you can find employment in nursing homes and long-term care facilities, hospitals, corporate health facilities, school systems and public health clinics. You may also work as an educator or researcher.

Program Description

The AAS Degree prepares you to provide dental hygiene services to patients and educate them in aspects of preventive dentistry. In our on-campus clinic, you will provide preventive and therapeutic services for patients under the supervision of Dental Hygiene faculty.

In the traditional role of dental hygienist, training includes prophylaxis, patient data gathering for dental hygiene diagnosis and treatment planning, fluoride treatment, sealant application, radiographic examination and nutritional counseling. In the expanded role of the dental hygienist, training includes treatment of periodontally-involved patients and treatment of handicapped, institutionalized and other medically compromised patients. You also learn to perform local anesthesia and administer nitrous oxide.

Because of the high level of personal and professional responsibility required of a dental hygienist, you must have integrity, maturity, individual motivation, good interpersonal skills, excellent manual dexterity and a solid science and general studies academic background to be successful in this program. We are firmly committed to fostering your intellectual growth and to developing well-qualified dental hygienists with high professional standards and ethics.

The Mini-Certificate in Local Anesthesia and Nitrous Oxide/Oxygen Sedation provides you with knowledge of the theory and practice of local anesthesia and nitrous oxide/oxygen sedation. This program teaches you to administer local anesthetics and nitrous oxide proficiently and safely. The administration of local anesthesia and nitrous oxide/oxygen sedation may be performed by licensed dental hygienists under the Colorado State Dental Practice Act. You must be currently enrolled in the Dental Hygiene program to enter this program.

Program Requirements

Entrance Requirements:

You must complete a current Dental Hygiene program application and meet all minimum requirements and application timelines. The application is available through the Dental Hygiene program, at the PCC Dental Hygiene website or in Admissions & Records. You should seek advisement from program faculty for assistance with applications, minimum requirements and required general education courses for admissions. In addition, all students entering the program will need a current CPR card good for 2 years.

If you are an AAS Dental Hygiene student, you must complete all General Education/Related Requirements.

Note: All students are accepted provisionally pending completion of a criminal background check. Disclaimer: The Colorado Board of Dental Examiners requires a dental hygienist applying for licensure to answer questions concerning felony history, excessive use or abuse of controlled substances/alcoholic beverages (within the last five years) and any physical or mental condition that may affect the ability to practice dental hygiene. Other questions asked by the State Board pertain to an applicant's history of malpractice judgment and any disciplinary action by any government or private agency. The PCC Department of Dental Hygiene assumes no responsibility for the denial of licensure by the Colorado State Board of Dental Examiners.

Total Credits: 3

Certificate Requirements

DEH 133 - Local Anesthesia

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 111, DEH 123, current enrollment in Dental Hygiene program.

Provides a working knowledge of the theory and practice of local anesthesia as applied to the practice of dentistry/dental hygiene. Emphasizes mastery of the armamentarium and techniques of regional anesthesia. Covers the knowledge and skills necessary to administer local anesthetics proficiently and safely.

DEH 138 - Nitrous Oxide/Oxygen Sedation

Credit(s): 1

Lecture Hour(s): 0.80

Voc/Tech Clinic Hour(s): 0.40

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Provides a working knowledge of the latest equipment and methods of nitrous oxide/oxygen sedation administration in the dental office.

Low Pressure Pipe Welder Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 16

Certificate Requirements

Core Requirements (16 Credits)

WEL 233 - 2G-Horizontal Pipe A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 104 or equivalent.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G horizontal position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 234 - 5G-Vertical Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 235 - 6G-45 Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 234.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 248 - Pipe Layout

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Using pipe template layout procedures and drawing procedures, perform cutting on pipe. Performs layout such as Y-fittings, laterals, full size tees, elbows, orange peel, bull plug, reducers, reducing tees and branch pipe.

Manual Transmissions Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 7

Certificate Requirements

ASE 151 - Automotive Manual Transmission/Transaxles & Clutches

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive manual transmissions, transaxles, clutches, and related components. This course meets AST/MAST requirements.

ASE 152 - Manual Transmission, Transaxles and Clutches II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel and all-wheel drive units.

ASE 253 - Advanced Manual Transmission/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles, clutches and their related components on customer vehicles.

ASE 281 - Internship: Basic Heavy Duty and Power Train

Credit(s): 1

Internship Hour(s): 3

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Med Prep for Nursing Assistant Mini-Certificate

CIP 51.9999

See list of Department Chairs on the Personnel page.

Program Description

The Med Prep program provides students with the opportunity to develop skills and knowledge for health occupations. This program is nine months in length; however, students have the option of taking either one or both semesters.

During the fall semester, students will pursue a common core of instruction. This course is structured to provide the students with a broad academic and vocational foundation in the health care professions. An introduction to the health care professions is provided through field trips, speakers, classroom activities and laboratory experiences. Students will have presentations by medical professionals who are currently working in the field to offer insight into the medical careers available. Students will receive instruction in nurse assisting and will be eligible to take the State Certification test.

The second semester will provide students with career development skills such as resume writing, portfolio building, interviewing techniques and basic knowledge about how to be successful in the professions of health care. Students will also obtain job exploration experience (job shadowing) at several health care agencies in the area. At the end of the semester, students will receive a certificate for Clinical Medical Assistant/Pharmacy Aid.

Total Credits: 14.5

Certificate Requirements

HPR 100 - Introduction to Health

Credit(s): 3

Lecture Hour(s): 3

Provides an exploratory course for students interested in a health career. Basic health skills such as vital signs and CPR will be included.

HPR 178 - Medical Terminology

Credit(s): 1-4

Lecture Hour(s): 1-4

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

MS Office Applications Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 6

Certificate Requirements

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CIS 155 - PC Spreadsheet Concepts: (Software Package)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Exposes the student 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.

or

CIS 218 - Advanced PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 118 or Instructor approval.

Covers the advanced capabilities of a PC software applications suite. Emphasizes solving business problems by

integrating data from all of the software applications that facilitate the production of useful information. Printed documents, reports, slides and forms are produced to communicate information.

Networking Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 13

Certificate Requirements

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

Nursing Aide Mini-Certificate

CIP 51.3902

See list of Department Chairs on the Personnel page.

Career Opportunities

The Nurse Aide program prepares you to work as an entry-level bedside caregiver in health care facilities or home health care services. You can work in a variety of positions: nursing assistant, nurse aide, orderly or attendant.

Program Description

This program teaches you the basic skills and procedures needed to assist hospital clients, long-term care residents, and home health care clients with their daily living activities.

Program Requirements

Successful completion of any CCR course or qualifying placement score or exemption.

To succeed in this program, you must have a sincere concern for people, good physical and emotional health, an excellent attendance record, an ability to communicate effectively with other health care personnel, patients and their families, and a neat, well-groomed appearance.

Note: Clinical agencies used during the program require that you successfully complete a background check, drug screening, immunization series and CPR training; you must also carry malpractice insurance.

Graduation Requirements:

Successful completion of NUA 101, NUA 170, NUA 171, and NUA 102.

Colorado State Board
1560 Broadway Suite 1350
Denver, CO 80202:
Website

Total Credits: 6.5

Certificate Requirements

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

Phlebotomy Technician Mini-Certificate

CIP 51.1009

See list of Department Chairs on the Personnel page.

Program Description

Phlebotomy Technician (PHL) is a one-semester (three course) certificate program. Courses cover venipuncture, capillary puncture, quality control, infection control, safety procedures, and laboratory computer systems. You will participate in laboratory and clinical experiences to perfect blood drawing skills and prepare you for the workforce as a qualified phlebotomist. When you successfully complete this program, you are eligible to sit for the National Phlebotomy Registry Exam.

The PHL program has a selective admissions process. The program application and requirements are available in the Health & Public Safety office or at Pueblo Community College PHL May 1 to July 15 for Fall Semester start and November 1 to January 5 for Spring Semester start. All Health & Public Safety programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you to the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

Phlebotomy Technician work in doctor's offices, hospital and outpatient labs.

Total Credits: 10

Certificate Requirements

HPR 112 - Phlebotomy

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Program admission required.

Covers the duties associated with the practice of venipuncture, capillary puncture, and special collection procedures. This course provides experience with quality control, infection control, safety procedures, as well as laboratory computer systems. Successful completion of this course, with an adequate number of blood draws, will constitute eligibility for application for a National Phlebotomy Registry Examination.

HPR 113 - Advanced Phlebotomy

Credit(s): 4

Lecture Hour(s): 2.50

Vocational Lab Hour(s): 2.25

Prerequisite(s): Program admission required.

Focuses on advanced phlebotomy skills including laboratory protocols, specimen processing and point of care documentation. This course provides opportunities for the student to master learned skills.

HPR 180 - Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Program admission and HPR 112

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 business location and with the direct guidance of the instructor.

Programming Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 11

Certificate Requirements

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

Security Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 15

Certificate Requirements

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

SQL Coding Certificate (6 Credits)

See list of Department Chairs on the Personnel page.

The Structured Query Language (SQL) is the programming language that is used with most database applications. Knowledge of SQL gives the student opportunities in both database and programming jobs. Most modern businesses manage their data using a database and databases are found in almost every industry. This two course certificate introduces the student to the basics of both SQL and database design.

Total Credits: 6

Courses

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

Steering and Suspension/Brakes Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 13

Certificate Requirements

ASE 110 - Brakes I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Introduces the basic theory of automotive braking systems including operation, diagnosis, basic repair of disc and drum friction assemblies, and basic hydraulic braking systems. This course meets MLR/AST/MAST program accreditation requirements.

ASE 111 - Automotive Brake Service II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): ASE 110.

Covers diagnostics, test procedures, and repair to automotive foundation braking system. This course also introduces the components, types of Antilock Braking Systems (ABS), and traction control systems of current vehicles. This course meets MLR/AST/MAST program accreditation requirements.

ASE 140 - Suspension and Steering I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on diagnosis and service of suspension and steering systems and components. This course meets MLR/AST/MAST requirements.

ASE 141 - Suspension and Steering II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers design, diagnosis, inspection, service of suspension, and steering systems used on light trucks and automobiles including power steering and Supplemental Restraint System (SRS) service. This course meets AST/MAST requirements.

ASE 210 - Automotive Power and ABS Brake Systems

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of the modern automotive braking systems including the operation, diagnosis, service, and repair of the anti-lock braking systems and power assist units. This course also covers the machining operations of today's automobile brake systems. This course meets AST/MAST requirements.

ASE 240 - Suspension and Steering III

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Structural Welding Intermediate Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 12

Certificate Requirements

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Structural Welding Introduction Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 12

Certificate Requirements

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

Vehicle Extrication Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course.

Total Credits: 3

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 126 - Vehicle Extrication Awareness Level

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the student with entry level knowledge and skills to safely operate at the scene of a vehicle/machinery extrication. Training in this course represents the minimum level of training needed to respond to a vehicle extrication incident.

FST 127 - Vehicle Extrication Operations Level

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Expands and refines the objectives of FST 126. Students shall be capable of hazard recognition, equipment use and techniques necessary to operate safely and effectively at incidents involving persons injured or entrapped in a vehicle or machinery.

Wildland Firefighter Mini-Certificate

CIP 43.0299

See list of Department Chairs on the Personnel page.

Career Opportunities

The Wildland Firefighter Certificate will prepare students for a career with local and state fire departments and federal land management agencies (US Forest Service, etc.). Additionally, this certificate is designed for individuals with a general interest in wildland fire suppression; volunteer firefighters who would like to expand their knowledge and career opportunities; and currently enrolled students with an interest in supplementing their degrees.

Program Description

The Wildland Firefighter Program will provide students with a solid foundation in theory and application of wildland fire suppression concepts. This certificate will also provide training that exceeds the minimum requirements for prospective wildland firefighters as established by the National Fire Protection Association and the National Wildfire Coordinating Group.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

Successful completion of all course work with a grade of "C" or better.

Total Credits: 12.75

Certificate Requirements

FSW 100 - S-190 Introduction to Wildland Fire Behavior

Credit(s): 1

Lecture Hour(s): 1

Provides instruction in the primary environmental factors that affect the start and spread of wildfire and recognition of potentially hazardous situations. This course can be taught in conjunction with or prior to FSW 101 - S-130 Firefighting Training.

FSW 101 - S-130 Firefighting Training

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Provides entry-level firefighter skills. A version of the L-180, Human Factors on the Fire line, is included as part of the course. Credit should be issued for S-130.

FSW 102 - S-131 Firefighter Type I

Credit(s): 0.50

Lecture Hour(s): 0.50

Designed to meet the training needs of the Firefighter Type 1. It contains several tactical decision modules designed to facilitate learning the objectives and class discussion. This course is designed to be interactive in nature. Topics include fire line reference materials, communications and tactical decision making.

FSW 103 - D-110 Dispatch Recorder with Introduction to Ross

Credit(s): 1

Lecture Hour(s): 1

Trains potential dispatch recorders on the structure of an expanded dispatch organization and how to effectively perform within that organization. Course will provide the student with a working knowledge of the purpose and process of completing the resource order and other dispatch forms. It will also provide instruction on established dispatch procedures.

FSW 104 - I-100 Introduction to ICS

Credit(s): 0.25

Lecture Hour(s): 0.25

Address the ICS organization basic terminology and common responsibilities. It provides a foundation upon which to enable entry-level personnel to function appropriately in the performance of incident-related duties. For students continuing through more complex ICS modules, this course may be used as pre-course work.

- FSW 140 - S-200 Initial Attack Incident Commander **Credit(s): 1**
- FSW 141 - S-203 Introduction to Incident **Credit(s): 2**
- FSW 142 - S-211 Portable Pumps and Water Use **Credit(s): 1.5**

FSW 143 - S-212 Wildfire Chain Saws

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Provides 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 provide hands-on cutting in surroundings similar to fire line situations.

- FSW 155 - I-200, IS-200, Q-436 Basic ICS: ICS for Single Resources and Initial Action Incidents **Credit(s): 1.5**

Programs of Study (A-Z)

Accounting, AAS

CIP 52.0302

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Accounting prepares you for a career in entry-level accounting or upper-level bookkeeping positions.

Program Description

This program offers you a comprehensive understanding of the theory and practice of modern accounting. It places particular emphasis on logical reasoning, enabling you to solve accounting problems and to make sound accounting policy decisions. It also teaches you to use computer software related to the accounting profession. You will learn to use state-of-the-art equipment through industry-standard instructional materials. The required occupational experience provides you the opportunity to obtain valuable on-the-job training. If you are pursuing bachelor's degree or a career as a Certified Public Accountant (CPA), check with your advisor concerning the transfer of courses to four-year colleges.

For bachelor's degree in accounting students: Students interested in a bachelor's degree in Accounting, the Pueblo Community College Pathway of Study is the AA degree in Business.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

Core Curriculum Requirements (28 credits)

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

ACC 131 - Income Tax

Credit(s): 3

Lecture Hour(s): 3

This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting periods and methods, and property transactions, with emphasis on taxation of individuals and sole proprietorships.

ACC 211 - Intermediate Accounting I

Credit(s): 4

Lecture Hour(s): 4

Focuses on comprehensive analysis of generally accepted accounting principles (GAAP), accounting theory, concepts and financial reporting principles for public corporations. It is the first of a two-course sequence in financial accounting and is designed primarily for accounting and finance majors. Focuses on the preparation and analysis of business information relevant and useful to external users of financial reports. Explores the theories, principles and practices surveyed in Accounting Principles and critically examines real-world financial analysis and reporting issues.

ACC 212 - Intermediate Accounting II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 211

Focuses on the theoretical and practical aspects of accounting for long-term liabilities, stockholders' equity, investments, pensions and leases. Includes income tax allocation, financial statement analysis, cash flow statements and accounting methods changes.

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

Related Requirements (15 credits)

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover

the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

Elective (3 credits)

(Choose one course from below)

ACC 287 - Cooperative Education

Credit(s): 3

Internship Hour(s): 9

Provides an opportunity to gain practical experience in applying occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives, and coordinate learning activities with the employer or work site supervisor. For Accounting majors only.

MAN 216 - Small Business Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107

Examines the elements necessary for the successful formation of a new small business. It is also designed to enhance the skills of those already involved in the operation of a small business. The course includes the development of a complete small business plan.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

Advanced Emergency Medical Technician

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an Emergency Medical Technician at either the Basic, Intermediate, or Paramedic level. Career opportunities include ambulance service, fire service, tactical EMS, critical care transport, and emergency department technician. If you graduate with an AAS degree, you have additional career opportunities in administration and management in the pre-hospital field.

Program Requirements

Entrance Requirements

To enroll in the EMT, EMT-Intermediate, or Paramedic programs, you must be at least 18 years of age, have all current immunizations, and be able to meet the requirements of the Colorado Department of Public Health and Environment EMTS Division Functional EMT Job Description. For enrollment into the AEMT program you must be a current EMT in Colorado. For the Paramedic program, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all pre-screening examinations, and prerequisites, and obtain department approval.

AEMT Option Requirements

Prerequisite Courses for Program Admission **Credit(s): 10**

EMS 131 - AEMT Fundamentals

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with instruction in EMS systems, communications and documentation, pathophysiology, airway management, and the role of EMS in public health.

EMS 129 - AEMT Pharmacology

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with a basis for making clinical decisions in the pharmacologic management of patients commonly encountered in the pre-hospital setting. Topics include the legal and ethical aspects of pharmacotherapy, roles, responsibilities and techniques associated with medication preparation and administration, the classification and naming of medications, pharmacokinetics, pharmacodynamics, and medication calculations. In addition the mechanism of action, dose, route(s) of administration, therapeutic effects, adverse effects, and therapeutic indications for medications within the Advanced Emergency Medical Technician scope of practice are discussed in detail.

EMS 127 - AEMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to the fundamental knowledge of growth, development and aging considerations in the emergency patient. The student will learn to use assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. These include the obstetric patient, neonatal patient, pediatric patient, geriatric patient and patients with special challenges. Learners will apply this knowledge to patient assessment and the development of a treatment plan in a simulated setting. This course also provides an overview of the principles of safe ground ambulance operations, incident management, multiple casualty incidents, air medical responses, vehicle extrication, hazardous material awareness and terrorism and disaster response. Learners will apply critical thinking skills to ensuring the safety of a scene and a plan for safe patient care and transportation.

EMS 133 - AEMT Medical Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the medical patient. This course provides instruction in the integration of physical exam findings, history findings and pathophysiology when assessing and treating the medical patient. Topics addressed include neurology, immunology, infectious diseases, endocrine disorders, cardiovascular disorders, toxicology, respiratory emergencies, hematology and renal disorders.

EMS 135 - AEMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the trauma patient. The student will learn how to utilize assessment findings to provide basic and selected advanced emergency care and transportation for the trauma patient.

EMS 171 - AEMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Acceptance into the AEMT Program.

Builds on the Advanced Emergency Medical Technician (AEMT) student's fundamental knowledge of patient care in the clinical and field setting. The student will perform patient assessments through physical examination, and patient interviews of health history and current illness. The student will then use those assessment findings to develop and carry out a patient treatment plan. This will include pediatric, geriatric and adult patients with a variety of presentations. The student will also survey each field scene for safety considerations and scene management.

Total Credits: 10

Advanced Emergency Medical Technology AAS

Program Description

See list of Department Chairs on the Personnel page.

This program prepares students with the knowledge and skills needed for employment in a health care facility or in prehospital patient care. It will also prepare students to continue their education in more advanced careers in EMS, nursing and other health care fields. Upon successful completion of the CNA, EMT, and AEMT portions of the program, students will be eligible to take the certifying exams, and with successful Completion of the exam, may apply for state certification at that level of training.

All Health & Public Safety programs have essential functions you must be able to perform for you to be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

Career opportunities include ambulance service, skilled nursing facilities, critical care transport, and emergency department technician. If you graduate with an AAS degree, you have additional career opportunities in administrative and management in the pre-hospital field.

Total Program Credits -- 64

All courses must be completed with a grade of "C" or higher.

Total Credits: 64

First (13 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

HPR 102 - CPR for Professionals: Professional Rescuer

Credit(s): 0.50

Lecture Hour(s): 0.50

Meets the requirement for American Red Cross Professional Rescuer CPR or American Heart Association Basic Life Support for those who work in emergency services, healthcare and other professional areas. Material presented in the course is basic patient assessment, basic airway management, rescue breathing, and CPR for infant, children and adult patients.

Third (12 credits)

EMS 121 - EMT Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management and patient assessment.

EMS 122 - EMT Medical Emergencies

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121. EMS 170.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history and pathophysiology when assessing and treating the medical patient.

EMS 123 - EMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.

EMS 124 - EMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials and terrorism.

EMS 170 - EMT Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

Second (14 credits)

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

EMS 115 - Emergency Medical Responder

Credit(s): 3

Lecture Hour(s): 3

Provides the student with core knowledge and skills to function in the capacity of a first responder arriving at the scene of an emergency, providing supportive care until advanced EMS help arrives.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Fourth (12 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

HPR 190 - Basic EKG Interpretation

Credit(s): 2

Lecture Hour(s): 2

Provides instruction for interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Twelve-lead EKG may be discussed.

EMS 180 - EMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Provides the Emergency Medical Technician (EMT) with a supervised clinical learning experience that goes beyond the initial EMT requirements for the State of Colorado Department of Health. Enables the student to work with an assigned preceptor for 90 hours of clinical experience to develop an understanding of the role and responsibilities of the EMT-Basic.

Fifth (13 credits)

EMS 127 - AEMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to the fundamental knowledge of growth, development and aging considerations in the emergency patient. The student will learn to use assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. These include the obstetric patient, neonatal patient, pediatric patient, geriatric patient and patients with special challenges. Learners will apply this knowledge to patient assessment and the development of a treatment plan in a simulated setting. This course also provides an overview of the principles of safe ground ambulance operations, incident management, multiple casualty incidents, air medical responses, vehicle extrication, hazardous material awareness and terrorism and disaster response. Learners will apply critical thinking skills to ensuring the safety of a scene and a plan for safe patient care and transportation.

EMS 129 - AEMT Pharmacology

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with a basis for making clinical decisions in the pharmacologic management of patients commonly encountered in the pre-hospital setting. Topics include the legal and ethical aspects of pharmacotherapy, roles, responsibilities and techniques associated with medication preparation and administration, the classification and naming of medications, pharmacokinetics, pharmacodynamics, and medication calculations. In addition the mechanism of action, dose, route(s) of administration, therapeutic effects, adverse effects, and therapeutic indications for medications within the Advanced Emergency Medical Technician scope of practice are discussed in detail.

EMS 132 - EMS Intravenous / Intraosseous Therapy

Credit(s): 2

Lecture Hour(s): .25

Vocational Lab Hour(s): 1.9

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current Colorado Certification as EMT or Department Chair Approval

Focuses on cognitive and skill practice for the Colorado scope of practice for the IV / IO endorsement as outlined in the Intravenous / Intraosseous Therapy and Medication Administration course curriculum.

EMS 131 - AEMT Fundamentals

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with instruction in EMS systems, communications and documentation, pathophysiology, airway management, and the role of EMS in public health.

EMS 133 - AEMT Medical Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the medical patient. This course provides instruction in the integration of physical exam findings, history findings and pathophysiology when assessing and treating the medical patient. Topics addressed include neurology, immunology, infectious diseases, endocrine disorders, cardiovascular disorders, toxicology, respiratory emergencies, hematology and renal disorders.

EMS 135 - AEMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the trauma patient. The student will learn how to utilize assessment findings to provide basic and selected advanced emergency care and transportation for the trauma patient.

EMS 171 - AEMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Acceptance into the AEMT Program.

Builds on the Advanced Emergency Medical Technician (AEMT) student's fundamental knowledge of patient care in the clinical and field setting. The student will perform patient assessments through physical examination, and patient interviews of health history and current illness. The student will then use those assessment findings to develop and carry out a patient treatment plan. This will include pediatric, geriatric and adult patients with a variety of presentations. The student will also survey each field scene for safety considerations and scene management.

Notes

¹ Successful completion of courses, student is eligible to sit for Nurse Aide Certification exam

² Successful completion of courses, student is eligible to sit for the EMT certification exam

³ Successful completion of courses, student is eligible to sit for the Advanced EMT certification exam

Advanced Paramedic Practitioner BAS

Program Description

See list of Department Chairs on the Personnel page.

PCC's Advanced Paramedic Practitioner Bachelor of Applied Science is designed for certified paramedics who have completed an Associate Degree in Emergency Medical Services or Paramedicine from an accredited college and wish to continue their education and obtain a Bachelor of Applied Science degree.

This program provides a student centered on-line learning environment meant to enhance career opportunities. Students will engage in self-directed learning activities and gain specialized knowledge in critical care, community and behavioral paramedicine.

Career Information

The Advanced Paramedic Practitioner degree opportunities may include working as a critical care paramedic, a community paramedic and in behavioral health in a variety of settings including mental health facilities, drug rehab, hospitals, clinics and in community paramedic programs.

The Advanced Paramedic Practitioner BAS program admission requirements and application are posted on Pueblo Community College EMS BAS webpage.

Total Program Credits -- 120

Students will receive 65 credits from AAS degree and earn 55 BAS credits. All program students must have a minimum of 30 PCC institutional credits.

Students may apply to start the program any semester.

First (16 credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

HPR 301 - Communications in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Develops professional written and oral communication plans to ensure effective patient-centered outcomes between health care professionals, patients and caregivers.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

OR

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test

construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

Second (12 credits)

HPR 403 - Critical Review of Healthcare Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Teaches how to evaluate and analyze published literature using a scientific approach to develop medical best practices, formulates and research clinical questions to effectively participate in medical discussions.

EMS 312 - Trauma Informed Care and Assessment

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

SOC 231

Provides an overview of trauma-informed approaches, covering the types of trauma experienced, the impact of trauma on individuals, and principles of trauma-informed care.

EMS 311 - Motivational Interviewing and De-escalation Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s):

Admission to the Advanced Paramedic Practitioner BAS program

SOC 231

Introduces the Motivational Interviewing (MI) concept as a client-centered and conversational method of communication designed to assist helping professionals address clients' ambivalence to change. The course will also introduce de-escalation techniques aimed at calmly communicating with an agitated client in order to understand, manage, and resolve their concerns.

EMS 310 - Clinical Assessment in the Behavior Setting

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces several assessment tools and techniques to utilize when assessing a client in a behavioral setting.

Third (14 credits)

HPR 310 - Quality Improvement in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Introduces approaches to assessing risk and improving health care quality through the practice of Continuous Quality Improvement (CQI). Course explores the conceptual framework for quality improvement, a focus on quality improvement as a strategy to manage cost, boost productivity, and enhance quality outcomes in various health care settings. The course will focus on both conceptual understanding and experiential learning.

EMS 425 - Fundamentals of Advanced Paramedic Practice

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Presents advanced techniques for patient assessment and management. The course covers analysis of lab values associated with electrolytes, pharmacokinetics, and pulmonary gasses as they pertain to the pathophysiology of disease and patient management.

EMS 433 - Advanced Paramedic Medical Care

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Provides advanced knowledge on assessing and managing patients with acute medical conditions and chronic medical conditions that have progressed in severity. This course focuses on in-depth pathophysiology of disease, advanced assessment, pharmacologic, and management required for patient care.

EMS 435 - Advanced Paramedic Trauma Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Provides students with the advanced knowledge required to assess and manage patients with acute medical conditions and chronic medical conditions that have progressed in severity. In-depth pathophysiology of disease will be presented in conjunction with the advanced assessment, pharmacologic and management knowledge required to care for patients.

Fourth (13 credits)

EMS 330 - Community Advocacy and Outreach

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces the role and function of the Community Paramedic (CP). The course provides insight into Community Paramedic's specific role and function as a member of a health care team and part of a community. The course identifies the components of the role, defines the role, and explains "scope of service" for the position of CP. The role of the CP as an advocate for clients in the community is discussed.

EMS 331 - Community Assessment

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces students to the role of the Community Paramedic (CP) as a member of the health care team in community assessment. The course presents concepts related to mapping community health care services, describing the demographics of the community, and assessing their impact on the health of the potential patients. The course will provide an understanding of community health services in order to understand the health care needs in the community.

EMS 430 - Care and Prevention Development Strategies

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces the responsibilities of the Community Paramedic (CP) for gathering appropriate patient/client information and maintaining accurate records, including documentation of encounters between the CP and the patient/client. The course presents information about the CP's role in assessing health care needs and appraising health care conditions.

EMS 489 - Capstone

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Provides students opportunity in a clinical setting for gathering and reviewing patient history, developing a care plan, providing appropriate treatment or counseling to the patient, and determining appropriate patient disposition.

¹ Courses taught in the first 8 weeks of the semester

² Courses taught in the second 8 weeks of the semester

Total Credits: 55

Air Conditioning Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 6

Certificate Requirements

ASE 264 - Introduction Automotive Heating and Air Conditioning

Credit(s): 1

Vocational Lab Hour(s): 1.50

Covers basic operation of heating and air conditioning components. This course meets MLR/AST/MAST requirements.

ASE 265 - Heating and Air Conditioning Systems

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Anthropology, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Anthropology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a bachelor's degree in anthropology. A degree in anthropology offers many career and educational opportunities. Careers in anthropology include museum education, field and medical research, higher-education teaching, public health, environmental assessment, community studies coordination, ethnic and cultural studies and field studies in archaeology.

Program Description

Anthropology is the study of the evolution of human society, life and culture. Specifically, anthropology answers the questions of how people lived, what they thought and how they interacted with their particular environment. Studying how societies have developed and changed from the past to the present, anthropology provides a critical understanding of the world today and how the future world may evolve.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with Designation in Anthropology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (32-33 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical

thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Writing course (GT-CO3) *

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1), prefer MAT 135

University of Colorado Denver

- University of Colorado Denver requires either: MAT 135 **or** MAT 121

Western State Colorado University

- Western State Colorado University requires MAT 121

Natural and Physical Sciences (8 Credits)

- Select two GT Pathway (GT-SC1) *

Arts and Humanities (6 Credits)

Select two GT Pathway courses from any category:

- Arts and Humanities (GT-AH1) *
- Literature and Humanities (GT-AH2) *
- Ways of Thinking (GT-AH3) *
- Foreign Languages (GT-AH4) *

Social and Behavioral Sciences (6 Credits)

(Select two GT Pathway courses from any category):

- Economics or Political Systems: (GT-SS1) *
- Geography (GT-SS2) *
- Human Behavior, Culture, or Social Frameworks: (GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT- HI1) *

Additional Required Anthropology Courses (22 Credits)

Please Note: Additional ANT courses beyond the four courses (13 credit hours) identified above may not count toward the Anthropology major at the receiving 4-year institutions.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 107 - Introduction to Archaeology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. The course provides a survey of the archaeology of different areas of the Old and New Worlds, the works of selected archaeologists, and major archaeological theories. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

Arts and Humanities (3 Credits)

Select one GT Pathway course from any category:

- Arts and Humanities (GT-AH1) *
- Literature and Humanities (GT-AH2) *
- Ways of Thinking (GT-AH3) *
- Foreign Languages (GT-AH4)

ANT course (3 Credits)

- Select one additional GT Pathway course: Social and Behavioral Science (GT-SS3) *

Social and Behavioral Sciences (3 Credits)

(Select on GT Pathway course from any category):

- Geography (GT-SS2) *
- Human Behavior, Culture, or Social Frameworks: (GT-SS3) *

Electives (5-6 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado State University-Ft. Collins (B.A. Anthropology)
- Fort Lewis College (B.A. Anthropology)
- Metropolitan State University of Denver (B.A. Anthropology)
- University of Colorado, Boulder (B.A. Anthropology)
- University of Colorado, Colorado Springs (B.A. Anthropology)
- University of Colorado, Denver (B.A. Anthropology)
- University of Northern Colorado (B.A. Anthropology)
- Western State Colorado University (B.A. Anthropology)

Applied Technology, AAS

CIP 41.9999

See list of Department Chairs on the Personnel page.

Program Description

PCC offers the AAS degree in Applied Technology as part of a statewide consortium of community colleges and Area Vocational Technical Schools (AVTS) consortium and other Colorado public community colleges.

To attain the degree, you must complete the technical course work for a state-approved Career and Technical Education Certificate at one of the following AVTS's: Delta Montrose Area Vocational Technical Center, Emily Griffith Opportunity School, San Juan Basin Area Vocational Technical School and T.H. Pickens Technical Center.

You will complete the general education and other degree requirements at PCC. Course work from the AVTS will be credited to your transcript when you complete the requirements of both institutions.

Program Requirements

You must comply with the regulations and requirements related to admissions and attendance at each institution.

Minimum Requirements for This Degree Include:

- a. Minimum of 60 credit hours of course work.
- b. Cumulative GPA of 2.0 or higher.
- c. General Education course of 15-18 semester hours
- d. Additional requirements of at least 42 semester hours:
 - * From an individual program with current state approval a one of four AVTS's
 - * If the program certificate is less than 42 semester hours, then the program certificate hours plus elective credit hours from Pueblo Community College will be used for the total of at least 42 semester hours
- e. Minimum of 15 semester credits earned at Pueblo Community College.

Total Credits: 60

Degree Requirements

AVTS Certificate (42-45 Credits)

General Education Courses (15-18 Credits)

The below general education courses must be selected from the general education courses listed in the AGS, AA or AS general education sections of this catalog.

- English/Speech **Credit(s): 3**
- Humanities **Credit(s): 3**
- Mathematics **Credit(s): 3**
- Natural Science **Credit(s): 3**
- Social Science **Credit(s): 3**

Art History, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Art History prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) or Bachelor of Fine Arts (BFA) degree in Art or Art History. Students who opt for the Bachelor of Arts in Art History can choose to work in several occupational fields including museums, galleries, government, research and academia. Once a BA or BFA is completed, students may pursue a higher or graduate degree in Art, if interested.

Program Description

This program introduces the student to the field of Art History and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well as specific courses in various subfields of Art History. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Art History will be ready to complete the last half of a BA or BFA in Art History at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31-32 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Approved (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT-MA1) *, prefer MAT 120: Mathematics for the Liberal Arts

Natural and Physical Sciences (7 or 8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. One of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities Courses from any category (GT-AH1, GT-AH2, GT-AH3, GTA4) *, **EXCEPT** those courses listed in the additional required courses section below.

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Art History Courses (18 Credits)

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 121 - Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Investigates the various approaches and media that students need to develop drawing skills and visual perception.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

Electives (10-11 Credits)

Determined by transferring institution;

Note: Students planning to transfer to Colorado State University-Fort Collins will be required to complete a 200-level foreign language for completion of the BA in Art History.

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Colorado Mesa University (B.F.A. Art, Art History concentration)
- Colorado State University-Ft. Collins (B.A. Art, Art History concentration)
- Colorado State University-Pueblo (B.A. Art; Art History Emphasis)
- Metropolitan State University of Denver (B.A. Art History, Theory, and Criticism)
- University of Colorado, Boulder (B.A. Art History)
- University of Colorado, Colorado Springs (B.A. Visual and Performing Arts, Art History option)
- University of Colorado, Denver (B.A. Fine Arts, Art History emphasis)
- University of Northern Colorado (B.A. Art and Design, Art History emphasis)
- Western State Colorado University (B.A. Art, Art History and Theory emphasis)

Associate Degree Nursing

Entrance Requirements:

See list of Department Chairs on the Personnel page.

This is a limited-entry admission program. You must meet specific program entrance requirements in addition to the PCC admission requirements. Students must complete general education requirements with a "C" or higher (minimum GPA 2.5) to be admitted to the Nursing program. Admission requirements – TEAS and CAN. Students who complete the departmental application process will have their qualifications reviewed by the program's admission committee.

The committee will consider the following criteria in the selection process: prerequisite GPA, completion of all general education courses, and health related work experience. Applicants not accepted for a given year who wish to be considered for a subsequent term must reapply.

Total Credits: 71.5

General Education (26 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular,

nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

¹ Indicates required prerequisite course

² Must be completed within 7 years of entrance into the Program. As of Fall 2020, must be completed within 10 years of entrance into the program

Core Requirements - 1st Year

Semester 1 - Fall (11 credits)

NUR 109 - Fundamentals of Nursing

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 112, HPR 108, MAT 103. Psych Tech: NUR 112.

Introduces the fundamental concepts necessary for safe, patient-centered nursing care to a diverse patient population while integrating legal and ethical responsibilities of the nurse. Introduces caring, critical thinking, the nursing process, quality improvement and communication used when interacting with patients and members of the interdisciplinary team, and relates evidence-based nursing practice. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings providing care to stable patients with common health alterations.

NUR 112 - Basic Concepts of Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 109, HPR 108, MAT 103; Psych Tech: NUR 109.

Overview of the basic principles of pharmacology including major drug classifications and prototypes of commonly used medications. Principles of medication administration include aspects of best practice for safe, quality, patient-centered care. Central points include safety, quality improvement factors in the administration of medications, patient teaching and variations encountered when administering medications to diverse patient populations across the lifespan.

NUR 175 -- Special Topics -- Introduction to Nursing **Credit(s): 3**

Semester 2 - Spring (13 credits)

NUR 106 - Med-Surg Nursing Concepts

Credit(s): 7

Lecture Hour(s): 3.40

Vocational Lab Hour(s): 0.90

Voc/Tech Clinic Hour(s): 9.90

Prerequisite(s): Admission to Nursing Program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 150 or permission of the program director.

NUR106 is the first medical/surgical nursing course. Building on NUR 109, this course provides for the acquisition of basic medical/surgical nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered care to a developmentally and culturally diverse adult patient population experiencing various medical/surgical interventions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings.

NUR 150 - Maternal-Child Nursing

Credit(s): 6

Lecture Hour(s): 3.30

Vocational Lab Hour(s): 2.10

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 106 or permission of the program director.

Nursing 150 provides for the acquisition of maternal/child nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, family-centered nursing care to childbearing families and children that is developmentally and culturally appropriate. Incorporates evidence-based practice, standards of practice, quality improvement, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of maternal/child and pediatric clinical settings.

Core Requirements - 2nd Year

Semester 3 - Fall (12.5 credits)

NUR 206 - Advanced Concepts of Medical-Surgical Nursing I

Credit(s): 6.50

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of the program director.

NUR 206 builds on NUR 106 focusing on advanced concepts of nursing applied to care of patients with high acuity medical/surgical conditions. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in a variety of healthcare settings. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of clinical settings.

NUR 211 - Psychiatric-Mental Health Nursing

Credit(s): 4

Lecture Hour(s): 2.70

Voc/Tech Clinic Hour(s): 3.90

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of program director.

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 psychiatric clinical conditions/disorders.

NUR 212 - Pharmacology II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing program and successful completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 211 or permission of the program director.

Builds on previously introduced pharmacological concepts and applies that learning to pharmacologic therapy to provide safe, quality, evidence-based nursing care to patients with complex healthcare needs. Focuses on safety and quality improvement factors in the administration of medications within a variety of healthcare systems. Advanced dosage calculations included.

Semester 4 - Spring (9 credits)

NUR 216 - Advanced Concepts of Medical Surgical Nursing II

Credit(s): 5

Lecture Hour(s): 2.30

Voc/Tech Clinic Hour(s): 8.10

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 206 and NUR 212 or permission of the program director.

Nursing 216 is a continuation of Nursing 206, focusing on complex medical/surgical conditions of the high acuity patient. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients experiencing high acuity medical/surgical conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of knowledge and skills occurs in a variety of clinical settings.

NUR 230 - Transition to Professional Nursing Practice

Credit(s): 4

Lecture Hour(s): 1.60

Voc/Tech Clinic Hour(s): 7.20

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 216 or permission of the program director.

Nursing 230 is a Seminar and practice Capstone course that provides an integrative experience applying all dimensions of the professional nurse in the care of diverse patient populations across a variety of healthcare settings. All major concepts of the nursing program are addressed. Leadership and the management of multiple patients are emphasized. Application of knowledge and skills occurs in the clinical setting to facilitate an effective transition from student to registered professional nurse.

Automatic Transmissions Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 6

Certificate Requirements

ASE 250 - Automatic Transmission/Transaxle Service

Credit(s): 1

Lecture Hour(s): 1

Focuses on practical methods of maintaining, servicing, and performing minor adjustments on an automatic transmission and transaxle. This course meets MLR/AST/MAST requirements.

ASE 251 - Automotive Transmission and Transaxle Repair

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation including removal, installation, and replacement of transmission/transaxle and components. This course meets AST/MAST requirements.

ASE 252 - Advanced Automatic Transmissions/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the diagnosis, repair, and rebuild of automatic transmissions and transaxles including the hydraulic, electronic, and mechanical components. This course meets MAST requirements.

Barbering Certificate

CIP 12.0402

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with

limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

Total Credits: 53

Certificate Requirements

General Education Requirement (3 Credits)

- Choose one Arts & Humanities **Credit(s): 3**

Core Requirements (50 Credits)

BAR 103 - Introduction to Hair & Scalp

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of hair, scalp treatments and shampoos. Focuses on recognition and treatment of disorders of hair and scalp, product knowledge and proper massage techniques to help control these disorders and cleanse the hair and scalp. Covers terminology dealing with hair structure scalp and hair disorders. Training is provided in a lab or classroom setting.

BAR 107 - Introduction to Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 - Intermediate Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 166 - Introduction to Facial Massages & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes basic understanding of facial massage manipulations and the study of skin in both practical and theory applications. Covers the benefits derived from proper facial massage and a good skin care routine.

BAR 167 - Intermediate Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on practical application dealing with anatomy, skin disorders, skin types and facial shapes. Students help patrons select proper skin care treatments

BAR 207 - Advanced Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Board license exam.

BAR 266 - Advanced Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes anatomy, skin disorders, skin types and facial shapes. Students guide patrons on selection of proper skin care treatments. Covers student preparation for State Board licensing examination on theory and practical procedures.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

COS 161 - Intermediate I: Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

COS 260 - Intermediate II: Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides continued study of theory and practice of proper methods of sterilization, disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

COS 261 - Advanced Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 161.

Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

Basic Fire Science Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 9

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 102 - Principles/Emergency Services

Credit(s): 3

Lecture Hour(s): 3

Provides an overview 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; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 109 - Occupational Safety & Health

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. This course introduces the basic principles

and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout emergency services.

Basic Firefighter - Structural (Fire Academy)

Program Description

See list of Department Chairs on the Personnel page.

The Fire Science Technology is an Associate of Applied Science (AAS) degree designed to meet the needs of fire protection and safety personnel. The program will prepare you for a career in fire science or a related field. Courses are offered through traditional classroom instruction, independent study, and hands on training in conjunction with local fire departments.

Career Information

The Fire Science Technology program prepares students for entry level positions in the fire service industry.

Total Credits: Variable

Basic Fire Science (9 credits)

FST 102 - Principles/Emergency Services

Credit(s): 3

Lecture Hour(s): 3

Provides an overview 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; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 109 - Occupational Safety & Health

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout emergency services.

Fire Investigator I (9 credits)

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 205 - Fire Investigation I

Credit(s): 3

Lecture Hour(s): 3

Provides the student with the 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 firesetter, and types of fire causes.

FST 252 - Fire Investigation II

Credit(s): 3

Lecture Hour(s): 3

Provides the student with advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.

Firefighter I (12 credits)

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

Vehicle Extrication (3 credits)

FST 126 - Vehicle Extrication Awareness Level

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the student with entry level knowledge and skills to safely operate at the scene of a vehicle/machinery

extrication. Training in this course represents the minimum level of training needed to respond to a vehicle extrication incident.

FST 127 - Vehicle Extrication Operations Level

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Expands and refines the objectives of FST 126. Students shall be capable of hazard recognition, equipment use and techniques necessary to operate safely and effectively at incidents involving persons injured or entrapped in a vehicle or machinery.

Fire Officer I (12 credits)

FST 201 - Instructional Methodology

Credit(s): 3

Lecture Hour(s): 3

Identifies the 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. Fire Instructor I State Certification is possible.

FST 206 - Fire Co Superv and Leadership

Credit(s): 3

Lecture Hour(s): 3

Addresses the requisite knowledge and skills required to perform at level 1 as identified in National Fire Protection Association (NFPA) 1021, Fire Officer Professional Qualifications. Areas of focus include: fire department organization, company officer traits, roles and responsibilities, communications practices, administrative functions, safety, health and wellness, training, fire prevention, human resources management, and incident management and operations. The course prepares the learner for the Colorado Fire Officer I State Exams and JPR evaluations.

FST 253 - NIMS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): FST 202.

Focuses on the National Incident Management System, including fire ground management and resource management. Multiagency coordination systems are discussed; organization preparedness for large scale emergencies, communication and information are addressed. The course concludes with a review of the National Response Plan.

FST 255 - Fire Service Management

Credit(s): 3

Lecture Hour(s): 3

Serves as the basic management course for present and potential members of the fire and emergency service professions. The course introduces the student to current fire service management practices, challenges, and real-world applications from the fire officer's point of view. The course addresses decision-making, problem solving, necessary communication skills, conflict resolution, effective leadership skills, as well as the role of the fire service manager in supervising personnel and programs.

Basic Firefighter - Structural (Fire Academy) (16 credits)

FST 108 - Firefighter Professional Preparation

Credit(s): 1

Lecture Hour(s): 1

Articulates strategies for creating success in a career as a Firefighter. This course discusses requirements in professionalism, emergency response in a multicultural environment, the psychological rigors and stressors typical of the vocation, and use of potential resources to attain career goals and plans.

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 160 - Candidate Physical Abilities Test Prep

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prepares students for the CPAT test and other related fitness testing for entry level firefighters. The course will focus on aerobics and strength training to assist students in passing a CPAT test or any related fitness entry level test. Students will also be trained on how to use various firefighting tools as they pertain to how the tools will be used in the CPAT or other related entry-level fitness test.

Fire Prevention & Public Education (14 credits)

FST 106 - Fire Prevention

Credit(s): 3

Lecture Hour(s): 3

Provides 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.

FST 150 - Introduction to Fire Prevention Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on conducting prevention and education needs assessment, targeting audiences; development and delivery of prevention and education programs. Includes methods of conducting fire prevention and safety inspections.

FST 204 - Principles of Code Enforcement

Credit(s): 3

Lecture Hour(s): 3

To provide the students with the fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program.

FST 208 - Fire Plans Review and Acceptance Testing

Credit(s): 2

Lecture Hour(s): 2

Instructs the student on how to review building plans submitted to a fire department, acceptance testing procedures, implementation of a fire inspection program, and how to deal effectively with the public for fire prevention and education activities.

FST 209 - Fire Protection Systems

Credit(s): 3

Lecture Hour(s): 3

Provides information relating to the 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.

Basic Wildland Firefighter Mini-Certificate

CIP 43.0299

See list of Department Chairs on the Personnel page.

Career Opportunities

The Wildland Firefighter Certificate will prepare students for a career with local and state fire departments and federal land management agencies (US Forest Service, etc.). Additionally, this certificate is designed for individuals with a general interest in wildland fire suppression; volunteer firefighters who would like to expand their knowledge and career opportunities; and currently enrolled students with an interest in supplementing their degrees.

Program Description

The Wildland Firefighter Program will provide students with a solid foundation in theory and application of wildland fire suppression concepts. This certificate will also provide training that exceeds the minimum requirements for prospective wildland firefighters as established by the National Fire Protection Association and the National Wildfire Coordinating Group.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

Successful completion of all course work with a grade of "C" or better.

Total Credits: 3

FSW 100 - S-190 Introduction to Wildland Fire Behavior

Credit(s): 1

Lecture Hour(s): 1

Provides instruction in the primary environmental factors that affect the start and spread of wildfire and recognition of potentially hazardous situations. This course can be taught in conjunction with or prior to FSW 101 - S-130 Firefighting Training.

FSW 101 - S-130 Firefighting Training

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Provides entry-level firefighter skills. A version of the L-180, Human Factors on the Fire line, is included as part of the course. Credit should be issued for S-130.

Beginning Production and Baking Mini-Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost

controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 16

Certificate Requirements

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 125 - Introduction to Foods

Credit(s): 4

Vocational Lab Hour(s): 6

Corequisite(s): CUA 101

Provides students with the fundamental principles and practices of a commercial kitchen, including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. Focuses on the fundamental principles and production of stocks, soups, sauces, gravies and thickening agents. Principles of cold food and nonalcoholic beverage preparation and production in a commercial kitchen. Basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Emphasizes the effects of seasonings and cooking methods of vegetable products and basic hot food preparation. Students prepare breakfast orders similar to those ordered in restaurants, with egg cookery and dairy products emphasized.

CUA 145 - Introduction to Baking

Credit(s): 4

Vocational Lab Hour(s): 6

Provides the student with the fundamentals of baking terminology, principles of baking, and the characteristics of the functions of the main ingredients that is used in bakery production. Orients student to use commercial equipment and tools and provides the student with the fundamentals of basic yeast-raised production and quick breads, white bread, rolls, variety grain breads, specialty breads, sweet yeast-raised products and quick bread, fundamentals of basic cake, pie, pastry and cookie production. Enables the student to produce a variety of cakes, pies, pastries, cookies and assorted dessert items in a commercial kitchen.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

- Culinary Electives **Credit(s): 3**

Behavioral Health AAS

Behavioral Health

See list of Department Chairs on the Personnel page.

Program Description

The Behavioral Health (BHP) program is a degree option for those who are interested in human behavior especially in a clinical or health related settings. During the program, students will study behavioral health concepts related to addiction and substance abuse, counseling, group dynamics and human development. The Behavior health program will also cover current trends, best practices and up-to-date research findings. If you wish to pursue a bachelor's degree after earning your AGS you can take advantage of a smooth transfer to University of Colorado, Colorado Springs (UCCS) BA in Human Services.

Graduates from the behavioral health program can look forward to a rapidly growing job market that has several options.

Career Information

A behavior health specialist is a professional who works with people who have disabilities or problems with behavior and learning impairment in a variety of settings ranging from residential to outpatient, including but not limited to department of corrections, youth residential facilities, hospitals and outpatient facilities.

- Behavioral health technician
- Case manager
- Peer support worker
- Community health worker

- Family support worker
- Respite car worker
- Paraprofessional counselor
- Social service liaison

First Spring (16 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

First Summer (7 credits)

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

Fall (17 credits)

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PTE 110 - Intro to Behavioral Health Care and Wellness

Credit(s): 3

Lecture Hour(s): 3

Explores basic principles of behavioral health and wellness care in behavioral health settings. This course develops interpersonal and technical skills while working with clients in psychiatric care settings.

CSL 245 - Professional Ethics I

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This course focuses on ethical issues specific to the practice of addiction counseling and on jurisprudence, which is the law and the practice of psychotherapy in Colorado. The class will cover the Colorado Mental Health Practice Act and introduce the student to the regulatory system and the role of DORA (Dept. of Regulatory Agencies) and DBH (Division of Behavioral Health) in the development and credentialing of the addiction counselor. There will be emphasis on developing ethical decision making skills, knowledge of confidentiality and the prohibited activities in the Mental Health Practice Act. Students will become familiar with the NAADAC Code of Ethics and acquire the tools for ethical and legal practice.

CSL 251 - Pharmacology I for Addiction Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide a solid base of knowledge about the drugs of abuse, including what is happening in human physiology and behaviors, and will enhance the ability of the counselor to offer treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

CSL 255 - Infectious Diseases for Addiction Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will help prepare addiction professionals to identify diseases frequently associated with drug abuse, determine client risk for infection, educate clients about disease prevention and treatment options, and assist clients in obtaining appropriate treatment as needed. This class will enhance the ability of the counselor to offer treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

CSL 260 - Client Records Management

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide the counselor with an understanding of the clinical record and the continuum of client care that the record documents and tracks. The class presents screening, assessment and evaluation, diagnosis, ASAM patient placement criteria, treatment planning, progress note completion, documentation requirements and discharge planning. It emphasizes the confidentiality of the client record and includes releases of information, mandatory disclosure and informed consent among others.

CSL 265 - Culturally Informed Treatment

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide a basic foundation for understanding how cultural competence, awareness and sensitivity can improve quality of care and increase positive outcomes. Cultural variables to be considered will include age, gender,

sexual orientation, religious affiliation, language, educational level, physical ability, economic status and social class as well as racial and ethnic backgrounds. This course is intended to provide participants with basic skills to recognize and respect the behavior, ideas, attitudes, values, beliefs, customs, language, rituals, ceremonies and practices characteristic of diverse groups of people. Course design will include definitions and descriptions of culture including concepts of assimilation and acculturation. Exercises will involve self-examination and discussion of the evolution of one's own personal beliefs, values and attitudes.

CSL 268 - Addictions Counseling Skills

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): High School diploma or equivalent.

This class will provide a framework and counseling model for working with clients with substance abuse or dependence. This course will teach the counseling skills needed to help clients process their information and move toward the change process. The models utilized in this class are client-centered, counselor-directed therapy using a motivational style and spirit.

CSL 269 - Principles of Addiction

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): High School diploma or equivalent.

Focuses on the major theories of addiction in an historical and theoretical context. Includes an elaboration on NIDA's Principles of Drug Addiction Treatment. This class meets the principles of addictions training requirement for the Counselor I level of the Colorado Alcohol and Drug Abuse Program.

Second Spring (15.5 credits)

HPR 106 - Law & Ethics for Health Professions

Credit(s): 2

Lecture Hour(s): 2

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

CSL 248 - Clinical Assessment & Treatment Planning

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): CSL 260

Covers the differences between screening and assessment and use of assessment instruments. In this course components of the clinical assessment include a biopsychosocial interview, assessing risk for self-harm, identifying cultural needs and supports, problem domains, determining stage of readiness for change and strengths of the client. Stages of treatment and systems of care will be covered along with facets of treatment planning.

CSL 250 - Motivational Interviewing I

Credit(s): 1.5

Lecture Hour(s): 1.5

Prerequisite(s): CSL 268

Provides the opportunity for students to learn both the model of Motivational Interviewing as well as the underlying Stages of Development model. Discussion of the populations of clients where these models have proven most effective will be discussed. Student opportunity for skills practice during class that includes skill sets specific to each stage of client readiness will be used. Presentation of assessment instruments to evaluate client readiness for change.

CSL 252 - Pharmacology II for Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): CSL 251

Focuses on the pharmacology of alcohol and drugs such as stimulants, nicotine, cannabis, hallucinogens, designer drugs, over the counter medications, and medications for psychiatric illnesses. When combined with CSL 251, this course meets the pharmacology training requirement for the Counselor II level of the Colorado Alcohol and Drug Abuse Program.

CSL 253 - Cognitive Behavior Therapy

Credit(s): 1

Lecture Hour(s): 1

Opportunity for students to learn the model of Cognitive Behavior Therapy as it applies to addiction. Discussion of the populations of clients where this model has proven most effective. Opportunity for skills practice during class that includes clinical feedback. Minimum of 14 contact hours.

CSL 254 - Trauma Informed Care

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Covers the concept of trauma-informed care, an approach being adopted within human services based upon an increased awareness of the ways trauma impacts functioning. Course will define what trauma informed care is and ways a traditional treatment setting can be modified to increase the sense of safety experienced by clients. Participants will learn how to incorporate trauma-informed practices into treatment with diverse populations, such as military veterans, women, and people with co-occurring disorders.

CSL 256 - Co-occurring Disorders

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Presents the basics of working with clients with co-occurring mental health and substance abuse disorders. This class will address clinical assessment, treatment philosophy, strategies, and guidelines to provide integrated treatment with co-occurring disorders. It will include an introduction to the diagnostic criteria for the mental disorders most often seen with substance use disorders. The essential values, attitudes, and competencies of the counselor working with this population are discussed.

Second Summer (9.5 credits)

PTE 117 - Theoretical Concepts of Psychiatric Care II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): PTE 110

Explores psychiatric problems common to four (4) special populations: children/adolescents, developmentally disabled individuals, aging persons and forensic clients. The student will learn how to recognize and intervene with problems common to these four groups.

PTE 120 - Application of Behavioral Health Care & Wellness

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): PTE 110

Explores basic etiology, symptoms, and interventions for common behavioral and mental health disorders. Provides the opportunity for students to experience the milieu of a behavioral health care setting while providing basic care to clients experiencing common behavioral and mental health issues.

CSL 257 - Certified Addiction Counselor

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Provides participants with an overview of ethical and risk management issues related to addiction treatment services with an emphasis on professional conduct, professional boundaries, boundary crossings, boundary violations, dual relationships and an appropriate use of counselor self-disclosure. Class will focus on issues of professional distance, modeling and maintaining healthy therapeutic boundaries. The ethics of delivering professional counseling to persons of culturally diverse backgrounds will be discussed along with issues of professional readiness and professional development.

CSL 258 - Group Counseling Skills

Credit(s): 1.5

Lecture Hour(s): 1.5

Prerequisite(s): CSL 268

Provides students with the skills that allow one therapist to facilitate a group process that help a number of clients simultaneously, and provides positive peer support and pressure for recovery. This class will help the student understand the use of group therapy and be able to demonstrate the skills necessary to facilitate a therapy group. The class will focus on group process and discuss diversity within groups, as well as challenges for group leaders.

Notes

¹ Indicates guarantee transfer courses (GT)

² Indicates program core courses

³ Requires department approval

Biology, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science (AS) Degree with Designation in Biology prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science (BS) degree in Biology. Students who opt for the Bachelor of Science in Biology can choose to work in numerous occupational fields of science or medicine. Once a BS is completed, many students will pursue a higher or graduate degree in Biology.

Program Description

This program introduces the student to the discipline of Biology includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Biology. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Biology will be ready to complete the last half of a BS in Biology at a four-year institution.

Program Requirements

Refer to the course descriptions listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing Course (GT--CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Science Courses (20 Credits)

Note: If these credits are not required for the major at a receiving 4-year institution, they will be applied to the Bachelor's degree as elective credit toward graduation. Please check with the receiving institution to determine in which way these courses will be applied

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Electives (4 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.S. Biology, Cellular and Molecular Biology, Organismal Biology, and Wildlife Biology emphasis)
- Colorado Mesa University (B.S. Biological Sciences, Biology concentration)
- Colorado State University-Ft. Collins (B.S. Biological Sciences)
- Colorado State University-Pueblo (B.S. Biology)
- Fort Lewis College (B.S. Biology, General Biology option)
- Metropolitan State University of Denver (B.S. Biology)
- University of Colorado, Boulder (B.A. Ecology and Evolutionary Biology)
- University of Colorado, Colorado Springs (B.S. Biology)
- University of Colorado, Denver (B.S. Biology)
- University of Northern Colorado (B.S. Biological Sciences, Cell and Molecular Biology, Ecology and Evolutionary Biology, Pre-Health and Biomedical Sciences emphasis)
- Western State Colorado University (B.A. Biology, Cell Biology/Pre-medicine, Environmental Biology and Ecology, General Biology, Pre-allied Health emphasis)

Bookkeeping Certificate

CIP 52.0302

Career Opportunities

The AAS degree in Accounting prepares you for a career in entry-level accounting or upper-level bookkeeping positions.

Program Description

The Bookkeeping Certificate focuses on the role of accounting basics in business and management to prepare students for an entry-level position in Bookkeeping, Payroll, Accounting, and Auditing (clerks). Students will encounter real-world scenarios used in payroll, tax, and computerized accounting along with the use of bookkeeping software. Students will use accounting information resources and systems, and present conclusions based on accounting and business data. Additionally, students will use ledgers, journals, and worksheets to complete formal, informal, and quantitative accounting tasks.

Total Credits: 29

Certificate Requirements

General Requirement (3 Credits)

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

Core Curriculum Requirements (26 credits)

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

Broadcasting & Production Technology Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 27

Certificate Requirements

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

MGD 264 - Digital Video Editing II

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): MGD 164

Looks at the more complex and advanced techniques of digital video editing. Areas of editing such as masking, filtering, blue/green screening, track mattes and image mattes will be examined. Students will produce a movie project in this class and discuss practical ways to distribute to various audiences.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

RTV 102 - Beginning Television

Credit(s): 3

Vocational Lab Hour(s): 4.5

Focuses on principles and techniques of television production in theory and the approach of studio and production. Emphasizes producing television programs, beginning with a concept through script to actual studio production, pre-production and post-production.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

Business Fundamentals Certificate

CIP 52.0201

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS and Certificate programs prepare you for entry level positions in marketing, management or sales; they also give you the skills you need to open your own business.

Program Description

You will study management from three perspectives: marketing, management and economics. Marketing studies offer specific training in sales, advertising, promotion and marketing. Management studies offer a generalized perspective with broad applications in the business world. Economic studies give you a basic understanding of economics and its relationship to other disciplines.

The Business Fundamentals Certificate program prepares you for an entry-level position in business or for starting your own small business. You can apply all course work for this certificate to the AAS Degree in Business Management.

Total Credits: 25

Certificate Requirements

ACC 115 - Payroll Accounting

Credit(s): 3

Lecture Hour(s): 3

Covers federal and state employment laws and their effects on personnel and payroll records. The course is non-technical and is intended to give students a practical working knowledge of the current payroll laws and actual experience in applying regulations, including computerized payroll procedures.

OR

ACC 131 - Income Tax

Credit(s): 3

Lecture Hour(s): 3

This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting periods and methods, and property transactions, with emphasis on taxation of individuals and sole proprietorships.

OR

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

CHOOSE 4 COURSES BELOW (12 Credits)

BUS 102 - Entrepreneurial Operations

Credit(s): 3

Lecture Hour(s): 3

Explores the essential requirements for starting and operating a business. This course covers basic concepts of business law, marketing, finance and operations. It guides the development of an effective business plan and prepares students to launch and sustain their own businesses.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

MAN 200 - Human Resource Management I

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the contemporary issues, theories, and principles used to effectively manage human resources. Topics covered include job analysis and design, talent acquisition and retention, planning and recruiting human resources, selecting employees, job placement, employee training and performance management, selecting employees, compensation and benefits, and retaining employees.

MAN 216 - Small Business Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107

Examines the elements necessary for the successful formation of a new small business. It is also designed to enhance the skills of those already involved in the operation of a small business. The course includes the development of a complete small business plan.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

Business Management Certificate

CIP 52.0201

See list of Department Chairs on the Personnel page.

Program Description

The AAS and Certificate programs prepare you for entry level positions in marketing, management or sales; they also give you the skills you need to open your own business.

Total Credits: 31

Certificate Requirements

ACC 131 - Income Tax

Credit(s): 3

Lecture Hour(s): 3

This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting periods and methods, and property transactions, with emphasis on taxation of individuals and sole proprietorships.

OR

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

OR

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

OR

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

OR

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

Business Management, AAS

Program Description

See list of Department Chairs on the Personnel page.

The Associate of Applied Science (AAS) Degree in Business Management teaches the theory and principles of management with practical, real world applications. These skill sets are relevant to those seeking management positions in the corporate environment or those wishing to develop their own small businesses. In addition to the classroom setting, learning opportunities will be made available with guest speakers, events, and community engagement.

Total Credits: 62

Degree Requirements

Communications (3 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Mathematics (3 credits)

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

Social and Behavioral Sciences (6 credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

General Education (3 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

OR

Any communications course(s) **Credit(s): 3**

Core Curriculum Requirements (29 credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

PSV 230 - Introduction to Civic Leadership

Credit(s): 3

Lecture Hour(s): 3

Enables the student to develop a critical understanding of public leadership through the study of pertinent models, theories and research.

MAN 224 - Leadership

Credit(s): 3

Lecture Hour(s): 3

Focuses on the leadership skills for contemporary organizations. Covers development and communication a shared vision to motivate and empower employees to manage conflict, to negotiate, and to develop teams.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

Elective Options (18 credits)

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

ENP 206 - Entrepreneurship Legal Issues

Credit(s): 3

Lecture Hour(s): 3

Explores legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships, and corporations. This course reviews articles of incorporation and the filing process, employment law, property, landlord tenant rights and duties, and business insurance.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

ENP 205 - Marketing for the Entrepreneur

Credit(s): 3

Lecture Hour(s): 3

Covers marketing strategies to launch and sustain an entrepreneurial venture. This course will include topics on marketing entrepreneurial ventures utilizing innovative and financially responsible marketing strategies. This course will help students to develop an understanding of entrepreneurial marketing goals and objectives. The course covers marketing principles and electronic marketing.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

ENP 207 - Entrepreneurship Financial Topics

Credit(s): 3

Lecture Hour(s): 3

Will cover topics such as financial planning for entrepreneurs, understanding tax considerations, understanding financial documents, financial ratio analysis, cash flow management, cost of capital and budgeting, raising capital, valuation, risk assessment, and venture exits.

Business Office Professional

See list of Department Chairs on the Personnel page.

Program Description

Prepares students for a career as an office professional in a variety of fields and industries. You will learn state-of-the-art technology, develop computerized or payroll skills, learn top-notch interpersonal (or group) communication skills and/or human resource management skills, develop a strong business understanding and report writing skills, and learn to solve problems creatively. As a student preparing to enter the workforce, there is the opportunity to gain relevant experience through internships or enhance your knowledge of personal finance.

Total Credits: 24

Certificate Requirements

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

OR

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

BTE 287 - Cooperative Education/Internship

Credit(s): 0.50-6

Cooperative Education Hour(s): 0.75-9

Prerequisite(s): Department Chair Approval.

Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work sites that are related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

OR

BUS 116 - Personal Finance

Credit(s): 3

Lecture Hour(s): 3

Surveys the basic personal financial needs of most individuals. Emphasizes the basics of budgeting and buying, saving and borrowing money, the intricacies of home ownership, income tax and investments, and the wise use of insurance, wills and trusts.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

OR

MAN 200 - Human Resource Management I

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the contemporary issues, theories, and principles used to effectively manage human resources. Topics covered include job analysis and design, talent acquisition and retention, planning and recruiting human resources, selecting employees, job placement, employee training and performance management, selecting employees, compensation and benefits, and retaining employees.

COM 217 - Group Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation. GT-SS3

OR

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Business Ownership AAS

See list of Department Chairs on the Personnel page.

Program Description

The Business Management program (AAS Degree and Certificates) prepares students for entry level positions in Marketing, Management, Sales, and Entrepreneurship. These offerings also provide opportunities for individuals working within the industry to up-skill and advance their careers. The (AA) in Business Management prepares students to transfer to bachelor's degree programs in Business Management. Per the statewide articulation agreement, students can complete fundamental courses at PCC and transfer to complete a Bachelor's Degree with a specific emphasis.

Total Credits: 61

General Education Requirements (15 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting,

taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

- Any communications Course(s): **Credit(s): 3**

Core Curriculum Requirements (31 credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

ENP 106 - Entrepreneurship Opportunity Analysis/Feasibility Study

Credit(s): 3

Lecture Hour(s): 3

Determines if a business venture is feasible based on personal, professional, and financial goals. This course will help to identify and analyze the present climate for business ideas through an industry analysis, target market analysis, competitive analysis, and financial analysis.

ENP 205 - Marketing for the Entrepreneur

Credit(s): 3

Lecture Hour(s): 3

Covers marketing strategies to launch and sustain an entrepreneurial venture. This course will include topics on marketing entrepreneurial ventures utilizing innovative and financially responsible marketing strategies. This course will help students to develop an understanding of entrepreneurial marketing goals and objectives. The course covers marketing principles and electronic marketing.

ENP 206 - Entrepreneurship Legal Issues

Credit(s): 3

Lecture Hour(s): 3

Explores legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships, and corporations. This course reviews articles of incorporation and the filing process, employment law, property, landlord tenant rights and duties, and business insurance.

ENP 207 - Entrepreneurship Financial Topics

Credit(s): 3

Lecture Hour(s): 3

Will cover topics such as financial planning for entrepreneurs, understanding tax considerations, understanding financial documents, financial ratio analysis, cash flow management, cost of capital and budgeting, raising capital, valuation, risk assessment, and venture exits.

ENP 209 - Entrepreneurship Business Plan

Credit(s): 3

Lecture Hour(s): 3

Guides students through the evaluation of a business concept. This course will include writing a comprehensive business plan. This course explores both traditional and lean business planning as a means to establish strategic vision and direction for a business. This course assesses the strengths and weaknesses of a business concept. This course will include identifying external and environmental factors related to business ownership and evaluating various resources available for funding small businesses.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

CTE Focused Elective Options (15 credits)

Students will choose courses within a specific discipline to gain content knowledge of a specific industry, e.g., Business, Culinary Arts, Automotive, Welding, Cosmetology, etc. **Credit(s): 15**

Business Ownership Certificate

See list of Department Chairs on the Personnel page.

Program Description

The Business Management program (AAS Degree and Certificates) prepares students for entry level positions in Marketing, Management, Sales, and Entrepreneurship. These offerings also provide opportunities for individuals working within the industry to up-skill and advance their careers. The (AA) in Business Management prepares students to transfer to bachelor's degree programs in Business Management. Per the statewide articulation agreement, students can complete fundamental courses at PCC and transfer to complete a Bachelor's Degree with a specific emphasis.

Total Credits: 18

Certificate Requirements (18 credits)

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

ENP 106 - Entrepreneurship Opportunity Analysis/Feasibility Study

Credit(s): 3

Lecture Hour(s): 3

Determines if a business venture is feasible based on personal, professional, and financial goals. This course will help to identify and analyze the present climate for business ideas through an industry analysis, target market analysis, competitive analysis, and financial analysis.

ENP 205 - Marketing for the Entrepreneur

Credit(s): 3

Lecture Hour(s): 3

Covers marketing strategies to launch and sustain an entrepreneurial venture. This course will include topics on marketing entrepreneurial ventures utilizing innovative and financially responsible marketing strategies. This course will help students to develop an understanding of entrepreneurial marketing goals and objectives. The course covers marketing principles and electronic marketing.

ENP 206 - Entrepreneurship Legal Issues

Credit(s): 3

Lecture Hour(s): 3

Explores legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships, and corporations. This course reviews articles of incorporation and the filing process, employment law, property, landlord tenant rights and duties, and business insurance.

ENP 207 - Entrepreneurship Financial Topics

Credit(s): 3

Lecture Hour(s): 3

Will cover topics such as financial planning for entrepreneurs, understanding tax considerations, understanding financial documents, financial ratio analysis, cash flow management, cost of capital and budgeting, raising capital, valuation, risk assessment, and venture exits.

ENP 209 - Entrepreneurship Business Plan

Credit(s): 3

Lecture Hour(s): 3

Guides students through the evaluation of a business concept. This course will include writing a comprehensive business plan. This course explores both traditional and lean business planning as a means to establish strategic vision and direction for a business. This course assesses the strengths and weaknesses of a business concept. This course will include identifying external and environmental factors related to business ownership and evaluating various resources available for funding small businesses.

Business, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Business prepares students to transfer to a bachelor's degree business program.

Program Description

Students who complete an AA degree and the prescribed curriculum in the articulation agreement and are admitted (with no academic deficiencies that require additional coursework) to a receiving institution participating in this agreement are guaranteed the following:

Junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in the degree program covered by this articulation agreement. Completion of the curriculum prescribed within this statewide articulation agreement does not guarantee admission to a participating receiving institution.

Program Requirements

Students must meet all admission and application requirements at the receiving institution including the submission of all required documentation stated deadlines. In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Business advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with Designation in Business, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (37 Credits)

Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (8 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

or

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 **or** GT-SC2), one must be with laboratory (GT-SC1) *

Arts and Humanities (6 Credits)

(Select two courses from any category):

- Arts and Expression: Select from a GT Pathways Arts and Expression course (GT-AH1) *
- Literature and Humanities: Select from a GT Pathways Literature and Humanities course (GT-AH2) *
- Ways of Thinking: Select from a GT Pathways Ways of Thinking course (GT-AH3) *
- Foreign Languages: Select from a GT Pathways Foreign Languages course (GT-AH4) *

Social and Behavioral Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting,

taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

History (3 Credits)

- Select one GT Pathways History course (GT-H11) *

Additional Required Courses (23 Credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society,

government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Business Administration, emphasis in Advertising, Business Teacher Education, General Business or International Business; B.S. Business Administration, emphasis in Accounting, Agribusiness, Economics, Finance, General Business, Health Care Administration, Management, Management Information Systems, Marketing, or Small Business Management)
- Colorado Mesa University (Bachelor of Business Administration (B.B.A.) concentrations in Business Economics, Emerging Markets, Energy Management/Landman, Entrepreneurship, Finance, Hospitality Management, Human Resource management, Information Systems, Insurance, Management, Managerial Informatics, or Marketing)
- Colorado Mountain College (as four-year institution) (B.S. Business Administration)
- Colorado State University-Ft. Collins (B.S. Business Administration)
- Colorado State University – Global Campus (B.S. Accounting, Business management, Healthcare Administration and management, Human Resource Management, Information Technology Management, Management Information Systems and Business Analytics, Marketing, Project Management)
- Colorado State University-Pueblo (B.S. Business Administration, majors in Management, Accounting, or Economics)
- Fort Lewis College (B.A. Business Administration, Business Administration option)
- Metropolitan State University of Denver (B.S. Accounting, Computer Information Systems, Finance, Management, Marketing)
- University of Colorado, Boulder (B.S. Business Administration)

- University of Colorado, Colorado Springs (B.S. Business, emphasis in Accounting, Business Administration, Finance, Human Resources Management, Information Systems, International Business, Management, Marketing PGA Golf Management, Service Management, or Sport Management)
- University of Colorado, Denver (B.S. Business Administration, emphasis in Accounting, Finance, Financial Management, Human Resources Management, Information Systems, International Business, Management, or Marketing)
- University of Northern Colorado (B.S. Business Administration, all emphasis)
- Western State Colorado University (B.A. Business Administration)

CAD/CAM Mini-Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 10

Certificate Requirements

MAC 243 - Mastercam

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces the concepts of creating basic 2D and 3D Mastercam wireframes, building and manipulating surfaces and solids. The practices and techniques of fixture incorporation, tool pathing, and machine code generation will be discussed. Basic user interfaces and custom interface setup will be covered, as well as common file storage.

MAC 241 - CAD CAM 2D Lab

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Requires students to produce a variety of lab exercises on robotic machinery in conjunction with MAC 240 . Aspects of toolpaths for contour, drill and pocket will be covered. Chaining geometry, setting parameters, and managing cutter compensations will be addressed in both multi-tool programs and remachining operations. Coursework will primarily focus on 2D geometry projects.

CAD 255 - Solidworks/Mechanical

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces parametric feature-based solid modeling 3D concepts to build confidence in 3D thinking and progresses to three-dimensional parameters. The student learns to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models.

Chemistry, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science (AS) Degree with Designation in Chemistry prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science (BS) degree in Chemistry. Students who opt for the Bachelor of Science in Chemistry can choose to work in numerous occupational fields of science or medicine. Once a BS is completed, many students will pursue a higher or graduate degree in Chemistry.

Program Description

This program introduces the student to the discipline of Chemistry includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Chemistry. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Chemistry will be ready to complete the last half of a BS in Chemistry at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (30 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic

equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

Arts and Humanities (3 Credits)

(See note below)

- Select one GT Pathways Arts and Humanities course from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (3 Credits)

(See note below)

- Select one GT Pathways Social and Behavioral course from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Science and Mathematics Courses (29 Credits)

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-

based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

CHE 211 - Organic Chemistry I with Lab

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of CHE 112 with a grade of "C" or better.

Focuses on compounds associated with the element carbon including structure and reactions of aliphatic hydrocarbons and selected functional group families. The course covers nomenclature of organic compounds, stereochemistry, reaction mechanisms such as SN1, SN2, E1 and E2. Laboratory experiments demonstrate the above concepts plus the laboratory techniques associated with organic chemistry.

CHE 212 - Organic Chemistry II with Lab

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of CHE 211 with a grade of "C" or better.

Explores the chemistry of carbon-based compounds, their reactions and synthesis including the structure, physical properties, reactivities, and synthesis of organic functional groups not covered in Organic Chemistry I. The course explores functional groups including alcohols, ethers, aromatics, aldehydes, ketones, amines, amides, esters, and carboxylic acids and the reactions and reaction mechanisms of aromatic compounds. An introduction to biochemical topics may be included if time permits. Laboratory experiences demonstrate the above concepts and the laboratory techniques associated with organic chemistry.

Elective (1 Credit)

Determined by transferring institution

Transfer Degrees

Note: This statewide transfer articulation agreement in Chemistry does not fulfill requirements for the GT Pathways general education curriculum or the Associate of Science degree prior to transfer; however, this agreement does guarantee a student, if admitted, junior standing and completion of the bachelor's degree within an additional 60 semester hours at the receiving institution.

Completion of the receiving institution's lower division general education requirements is fulfilled only under the condition that one GT Pathways-approved course in arts and humanities (AH1, AH2, AH3, or AH4) and one GT

Pathways-approved course in social and behavioral sciences (SS1, SS2, or SS3) are successfully completed at the receiving institution within the first 30 hours or 12 calendar months.

Students transferring to a four-year college/university under this Chemistry agreement are encouraged to 'reverse' transfer the one GT Pathways course in arts and humanities and the one GT Pathways course in social and behavioral sciences back to PCC in order to complete the GT Pathways general education program and to earn their Associate of Science degree with a Chemistry designation.

Lecture and laboratory portions of organic chemistry, CHE 211 and CHE 212, must not be taken in an online delivery format.

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.S. Chemistry)
- Colorado Mesa University (B.S. Chemistry)
- Colorado State University-Ft. Collins (B.S. Chemistry)
- Colorado State University-Pueblo (B.S. Chemistry)
- Fort Lewis College (B.S. Chemistry, Chemistry option)
- Metropolitan State University of Denver (B.A./B.S. Chemistry)
- University of Colorado, Boulder (B.A. Chemistry)
- University of Colorado, Colorado Springs (B.A./B.S. Chemistry)
- University of Colorado, Denver (B.S. Chemistry)
- University of Northern Colorado (B.S. Chemistry, Biochemistry, Chemistry, Forensic Science, Industrial Chemistry, Pre-Health emphasis)
- Western State Colorado University (B.A. Chemistry, General Chemistry, Biochemistry emphasis)

CNC Mini-Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 12

Certificate Requirements

MAC 203 - Introduction to CNC Operations

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Introduces basic writing and editing of CNC programs. G&M codes, math, speeds feeds, production processes including basic process controls, simple fixturing, and documentation associated with manufacturing will be covered.

MAC 208 - CNC Operations II

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Further develops skills in writing and editing advanced CNC programs. G&M codes, math, speeds feeds, production processes including multi-part, process controls, fixturing, and documentation associated with manufacturing will be covered.

Communication, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Communication prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) degree in Communication. Students who opt for the Bachelor of Arts in Communication can choose to work in several occupational fields, including business, advertising, education, media, journalism or public relations. Once a BA is completed, students may pursue a higher or graduate degree in Communication, if interested.

Program Description

This program introduces the student to the discipline of Communication and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Communication. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Communication will be ready to complete the last half of a BA in Communication at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GTMA1) *, prefer MAT 120: Mathematics for the Liberal Arts

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. At least one of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

- select one other GT Pathways Social and Behavioral course from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Communication Courses (18 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 217 - Group Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation. GT-SS3

- Select one three-credit course with a COM prefix **Credit(s): 3**

Select two GT Pathways courses from either: (6 Credits)

- History (GT-HI1) *, **or** Social and Behavioral Sciences (GT-SS1, GT-SS2, **or** GT-SS3) *

Electives (11 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Colorado State University-Ft. Collins (B.A. Communication Studies)
- Colorado State University-Global Campus (B.S. Communication)
- Metropolitan State University of Denver (B.A. Speech Communication, Organizational Communication emphasis)

- University of Colorado, Boulder (B.A. Communication)
- University of Colorado, Colorado Springs (B.A. Communication, General Communication Studies emphasis)
- University of Colorado, Denver (B.A. Communication)
- University of Northern Colorado (B.A. Communication Studies)
- Western State Colorado University (B.A. Communication Arts, Communication emphasis)

Computed Tomography, BAS

CIP 51.0911

See list of Department Chairs on the Personnel page.

Career Opportunities

The BAS in Radiologic Technology program prepares students for careers in Computed Tomography (CT) or Magnetic Resonance Imaging (MRI), Leadership and Teaching in Medical Imaging.

Program Description

The BAS in Radiologic Technology program teaches students to perform Computed Tomography (CT) exams or Magnetic Resonance Imaging (MRI) exams as well as how to lead or teach others in the Medical Imaging Department. It provides students with an additional imaging modality and prepares them to take on leadership roles in the imaging department in health care facilities.

Program Requirements

Entrance Requirements:

Applicants must hold an associate's degree and be a registered radiologic technologist with the American Registry of Radiologic Technologists (ARRT).

Graduation Requirements:

Must complete 120 credits including didactic and clinical components of the program.

Total Credits: 43

Curriculum Requirements (43 Credits)

First Year-Fall Semester

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

First Year-Spring Semester

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

RTE 341 - Theory and Application of CT Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental and advanced principles of Computed Tomography (CT) in order to perform clinical CT examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

RTE 351 - CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Covers the skill and knowledge necessary to perform supplemental procedures for imaging various anatomical structures including the head, spine, chest, abdomen, pelvis and extremities utilizing Computed Tomography. It provides instruction on gross pathological conditions demonstrated on CT images.

Summer Semester

RTE 382 - Internship: CT I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in Computed Tomography exams. The Internship allows the student to gain clinical experience and develop proficiency in CT.

RTE 451 - Advanced CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 351.

Provides the skill and knowledge necessary to perform advanced specialty procedures for imaging various anatomical structures utilizing Computed Tomography. It distinguishes vascular anatomy and incorporates contrast media injections and contraindication into complex imaging studies.

Second Year-Fall Semester

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

RTE 461 - Leadership in Medical Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Examines concepts and skills needed for leadership roles in Medical Imaging. It prepares the student with communication, time management, supervision, task delegation, conflict management and performance assessment skills.

or

RTE 462 - Teaching Methodologies in Medical Imaging Education

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Provides a general overview of the concepts and theory of Medical Imaging education. It introduces current theories of teaching adult learners in the Imaging Sciences, objective development of active learning activities, classroom assessment techniques and delivering course content through distance-learning formats.

RTE 482 - Internship: CT II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 382.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in CT.

Computer Information Systems, AGS (with Transfer Articulation Agreement)

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The AGS degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program teaches you basic networking, programming and database technologies, as well as technical aspects of the Internet and data communications. The Associate of General Studies Degree with an emphasis in Computer

Information Systems prepares you to transfer to a university as a junior to pursue a bachelor's degree in Computer Science or Computer Information Systems. Please check with the university of your choice to assure transferability of all courses.

Total Credits: 60

General Education Course Requirements (30 Credits)

Written and Oral Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Physical & Life Sciences (8 Credits)

Courses with Required Lab:

Choose two courses:

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

ENV 101 - Environmental Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources,

pollution and environmental protection. Using a holistic approach, students will study how the foundations of natural sciences interconnect with the environment. This course includes laboratory experience.

GEO 111 - Physical Geography: Landforms with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces students to the principles of Earth's physical processes, emphasizing landforms, soils and hydrology. Examines the formation and distribution of landforms, such as mountains, valleys and deserts, and their shaping by fluvial and other processes. The course incorporates an integrated process of lectures, discussion and laboratory assignments.

GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the principles of meteorology, climatology, world vegetation patterns and world regional climate classification. The course includes investigating the geographic factors which influence climate, such as topography, location, elevation, winds and latitude.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

GEY 135 - Environmental Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Introduces the subject of geology as it relates to human activities. Geologic hazards such as floods, landslides, earthquakes, and volcanoes are investigated. Mineral, energy, soil, and water resources are discussed in terms of their geologic formation and identification, usage by society, and associated environmental impacts. Land use issues, waste, and pollution are also examined.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 107 - Energy Science & Technology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Explores the science of energy and energy technologies, with a focus on renewable energy resources and clean technologies. It provides a background in the physics of energy, energy transfer and the current state of technology. Students will evaluate the future utilization of renewable technologies. Activities may include investigating conservation of energy, mechanical, electrical, heat and fluid power systems; energy transfer and loss; understanding energy audits; testing solar collectors and wind generators; and investigating hydrogen fuel cells. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Social Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

Choose One Course from the Following (3 Credits)

Arts and Expression

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 121 - Music History Medieval Thru Classical Period: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music from the Middle Ages into the Classical period, including styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 122 - Music History Early Romantic Period to the Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music connecting the classical period to the Romantic period and following to the present. This course includes the study of styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 125 - History of Jazz: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of jazz history covering the basic materials of music and the forms, media, genres, and the historical and cultural framework of each style period. This course emphasizes the building of critical listening tools and the development of a jazz music vocabulary. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 211 - Development of Theatre Greek-Renaissance: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 212 - Development of Theatre Restoration to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 215 - Playwriting: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Gives students the opportunity to learn and practice playwriting techniques, thereby improving creative writing skills. Elements of dramatic structure, dialogue, styles and theatrical practices are emphasized. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

Literature and Humanities

HUM 103 - Introduction to Film Art: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Studies the relationships among film's stylistic systems, narrative systems and audience reception. Students view, discuss and critically analyze a variety of films which represent a variety of genres and themes. The course incorporates the vocabulary of stylistic systems (for instance, cinematography and editing) and narrative systems (for instance, story structure and character motivation) as both relate to the kinds of meanings a film conveys. This course is approved as part of the Colorado Statewide Guaranteed transfer curriculum: GT:AH2.

HUM 115 - World Mythology: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces students to a multidisciplinary approach to world mythology. Common themes are illustrated and connected to religion, philosophy, art, literature, music and contemporary culture. In addition, students will study various ways of interpreting myth. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 121 - Humanities: Early Civilization: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the prehistoric to the early medieval era. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 122 - Humanities: Medieval - Modern: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the medieval to the early modern era. This is a statewide Guaranteed Transfer course in the GT-AH2 category. GT-AH2

HUM 123 - Humanities: Modern World: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 205 - Ethnic Literature: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Focuses on significant texts by ethnic Americans, including African-American, Native American, Latino/a and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 212 - American Literature After Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the mid-19th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 225 - Introduction to Shakespeare: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 246 - Literature of Women: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the techniques and themes in literature by and about women by examining women's issues from various genres. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

Ways of Thinking

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 114 - Comparative Religions: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the major world religions from both the Eastern and Western world such as Hinduism, Buddhism, Confucianism, Taoism, Zoroastrianism, Judaism, Christianity, Islam, Bahá'í and influential preliterate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological) to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 115 - World Religions-West: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to religions of the Western world: Zoroastrianism, Judaism, Christianity, Islam, Bahá'í, and influential pre-literate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological), to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets, and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 218 - Environmental Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Critically analyzes theories of value of the natural world. Topics include the relation between scientific and moral principles; theories of the moral worth of persons, animals, plants and other natural objects; historical, religious and cultural influences on conceptions of nature; alternative accounts of human relationships and responsibilities to nature, including deep ecology and eco-feminism; and the connection between moral and political values and economic policies. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 220 - Philosophy of-Death and Dying: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Explores the major philosophical questions surrounding death and dying: the metaphysical arguments for and against the existence of a soul and life after bodily death; the epistemological assessment of arguments for the soul and life after death; the ethical justifications taken on positions such as rational suicide and physician assisted suicide, as well as a focus on philosophy's existentialist contribution to questions about the meaning of life and the meaning of death. This course is one of the statewide Guaranteed Transfer courses. GT-AH3.

Core Curriculum Requirements (27 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

Electives (3 Credits)

(Choose from List)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

or

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

or

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

or

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

or

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Computer Science, (General AS degree with focus of study)

See list of Department Chairs on the Personnel page.

Total Credits: 60

General Education Course Requirements (36 credits)

Written and Oral Communication (6 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 credits)

- Choose a CCCS GT-SC1 (5 credits)
- Choose a CCCS GT-SC1 (5 credits)

Arts and Humanities (6 credits)

- Choose a CCCS GT-AH1, AH2, AH3, or AH4 (3 credits)
- Choose a CCCS GT-AH1, AH2, AH3, or AH4 (3 credits)

Social Sciences (6 credits)

- Choose a CCCS GT-SS1, SS2, SS3 (3 credits)
- Choose a CCCS GT-SS1, SS2, SS3 (3 credits)

History (3 credits)

- Choose a CCCS GT-HI1 (3 credits)

Select 24 Elective Credits from the Below (24 credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 230 - C Programming: Platform

Credit(s): 3

Lecture Hour(s): 3

Prepares students to be a better programmer using the C programming language. C is a mid-level language whose economy of expression and data manipulation features allows a programmer to deal with the computer at a low level. The goal is to learn skills that are usable in many languages and understand what is happening at the machine level. The student should already understand the control structures selection, iteration, and subroutines (functions/methods).

CSC 240 - Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Java programming language and covers basic graphics, events/procedures, user interface and libraries. Enables the student to write and execute a variety of Java programs. Incorporates Java Applets into HTML.

CSC 241 - Advanced Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 240 or instructor approval.

Continues the study of the Java programming language. Covers advanced programming topics including multithreading, network/Internet programming, database programming and JavaBeans. Enables the student to write advanced, large and complex programs.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 255 - Linear Algebra

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 201 with a grade of C or better.

Explores vector spaces, matrices, linear transformations, matrix representation, eigenvalues and eigenvectors.

Choose one CCCS GT-SC1 (4 credits)

Construction Technician Basic

CIP 46.0000

See list of Department Chairs on the Personnel page.

Career Opportunities

A program that generally prepares individuals to apply technical knowledge and skills in the building, inspecting, and maintaining of structures and related properties. This includes basic instruction in carpentry, electrical and power installation, building/construction, blueprint reading, plumbing, and other construction-related applications.

Total Credits: 9

Fall or Spring Semester (9 credits)

CAR 103 - Carpentry Basics

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Provides a basic introduction to construction work for all crafts, safety concerns and procedures, and the safety and use of hand and power tools. This course specifically applies to construction work.

CAR 105 - Job Site Layout and Blueprint Reading

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Introduces blueprint reading and how they apply to the construction site. Includes in-depth introduction to site layout (materials and methods).

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 121 - Floor Framing

Credit(s): 1

Lecture Hour(s): 0.25

Vocational Lab Hour(s): 1.12

Covers framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 122 - Wall Framing

Credit(s): 1

Lecture Hour(s): 0.25

Vocational Lab Hour(s): 1.12

Focuses on the procedures for laying out and framing walls and ceilings, including roughing-in door and window openings, construction corners and partition Ts, bracing walls and ceilings, and applying sheathing.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 123 - Roof Framing

Credit(s): 1

Lecture Hour(s): 0.25

Vocational Lab Hour(s): 1.12

Describes the various kinds of roofs and contains instructions for laying out rafters for gable roofs, hip roofs and valley intersections. Coverage includes both stick-built and truss-built roofs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 170 - Clinical: Construction Lab I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

Cosmetology Barber Crossover

See list of Department Chairs on the Personnel page.

The Barbering Crossover Certificate is designed for Licensed Cosmetologists to learn the remaining skills that Barbers know they can carry a dual license in the State of Colorado. The program includes techniques in men's hair cutting, men's facials, shaving, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on manikins and the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

Total Credits: 3

Students wanting to obtain a Barbering License by completing the Barbering Crossover Certificate will have to have their Cosmetology License.

Core Curriculum Summer Semester (3 credits)

BAR 107 - Introduction to Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 - Intermediate Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 207 - Advanced Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Board license exam.

Cosmetology Certificate

CIP 12.0401

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Cosmetology degree or certificate – This program provides training in hair, skin and nail care services. Instruction is provided in hair cutting, hair styling, hair coloring, chemical texture services, skin care, waxing services, make-up application and nail care needs.

Total Credits: 56

Certificate Requirements

Core Requirements (53 Credits)

COS 103 - Shampoo/Rinses/Conditioners I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 - Introduction to Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 - Intermediate: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 - Introduction to Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair-cutting implements. Focuses on basic hair-cutting techniques using all cutting implements, disinfection and sanitation procedures as they relate to haircutting.

COS 121 - Intermediate I: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Focuses on theory related to facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 - Introduction to Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Combines theory with the practical application of roller placement, shaping, pin curls, finger waves, air forming iron curling, soft pressing and hard pressing.

COS 131 - Intermediate I: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 - Introduction to Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

COS 141 - Intermediate I: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 203 - Shampoo/Rinses/Conditioners II

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 103.

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 - Intermediate II: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

COS 211 - Advanced Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 111.

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 - Intermediate II: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 - Advanced Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 121.

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 - Intermediate II: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 - Advanced Hair Styling

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 131.

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 - Intermediate II: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

COS 241 - Advanced Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 141.

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

EST 110 - Introduction to Facials and Skin Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic understanding of massage manipulations when providing facials, the study of skin in both theory and practical applications, and benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

EST 111 - Intermediate Facials & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 110.

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 210 - Advanced Massage & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 111.

Provides the student with advanced techniques in massage, skin care and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 - Facial Make-up

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): EST 110.

Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 - Hair Removal

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): EST 110.

Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

NAT 108 - Introduction of Manicuring/Pedicures/Artificial Nails

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 158 - Intermediate Manicuring/Pedicures/Artificial Nails

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 159 - Intermediate Manicuring/Pedicures/Artificial Nails II

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 208 - Advanced Manicuring/Pedicures/Artificial Nails

Credit(s): 4

Voc/Tech Clinic Hour(s): 8

Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.

Elective

Art and Humanities (3 Credits)

Recommended:

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 122 - Drawing for the Graphic Novel

Credit(s): 3

Art Studio Hour(s): 6

Introduces the drawing and fine art principles used in developing illustrations for the graphic novel. Students explore the graphic novel as a vehicle for a unique, personal venue for artistic expression. Students explore the history of the graphic novel as well as examine different artistic styles used in the development of graphic novel illustrations. The application of artistic concepts in the creation of an individual graphic work and thorough examination of course material in terms of style, design considerations and visual elements are the primary focus. Students will create images for a graphic novel, focusing on unity of style and techniques for creating images appropriate to story line using black and white or grayscale illustrations.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 133 - Jewelry and Metalwork I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the construction of jewelry designs in metals and small casting techniques.

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

or

ART 161 - Ceramics I

Credit(s): 3

Art Studio Hour(s): 6

Introduces traditional and contemporary ceramic forms and processes including hand building and throwing on the potter's wheel.

Cosmetology, AAS

CIP 12.0401

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field. Students can choose from the following:

- Cosmetology degree or certificate – This program provides training in hair, skin and nail care services. Instruction is provided in hair cutting, hair styling, hair coloring, chemical texture services, skin care, waxing services, make-up application and nail care needs.
- Hairstylist certificate – This certificate program provides training in hair care. Instruction is provided in hair cutting, hair styling, hair coloring and chemical textures services.
- Manicurist certificate – This certificate program provides training in nail care. Instruction is provided in manicuring, pedicure, nail design extensions and nail artistry.
- Esthetician certificate – This certificate program provides training in facial care.

Program Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Total Credits: 68

Degree Requirements

General Education Requirements (15 Credits)

English (3 Credits)

Recommended:

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations.

Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Math (3 Credits)

Recommended:

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors.

Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Art and Humanities (9 Credits)

Recommended:

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 122 - Drawing for the Graphic Novel

Credit(s): 3

Art Studio Hour(s): 6

Introduces the drawing and fine art principles used in developing illustrations for the graphic novel. Students explore the graphic novel as a vehicle for a unique, personal venue for artistic expression. Students explore the history of the graphic novel as well as examine different artistic styles used in the development of graphic novel illustrations. The application of artistic concepts in the creation of an individual graphic work and thorough examination of course material in terms of style, design considerations and visual elements are the primary focus. Students will create images for a graphic novel, focusing on unity of style and techniques for creating images appropriate to story line using black and white or grayscale illustrations.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 133 - Jewelry and Metalwork I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the construction of jewelry designs in metals and small casting techniques.

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

or

ART 161 - Ceramics I

Credit(s): 3

Art Studio Hour(s): 6

Introduces traditional and contemporary ceramic forms and processes including hand building and throwing on the potter's wheel.

Core Requirements (53 Credits)

COS 103 - Shampoo/Rinses/Conditioners I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 - Introduction to Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 - Intermediate: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 - Introduction to Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair-cutting implements. Focuses on basic hair-cutting techniques using all cutting implements, disinfection and sanitation procedures as they relate to haircutting.

COS 121 - Intermediate I: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Focuses on theory related to facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 - Introduction to Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Combines theory with the practical application of roller placement, shaping, pin curls, finger waves, air forming iron curling, soft pressing and hard pressing.

COS 131 - Intermediate I: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 - Introduction to Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

COS 141 - Intermediate I: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 203 - Shampoo/Rinses/Conditioners II

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 103.

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 - Intermediate II: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

COS 211 - Advanced Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 111.

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 - Intermediate II: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 - Advanced Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 121.

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 - Intermediate II: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 - Advanced Hair Styling

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 131.

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 - Intermediate II: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

COS 241 - Advanced Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 141.

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

EST 110 - Introduction to Facials and Skin Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic understanding of massage manipulations when providing facials, the study of skin in both theory and practical applications, and benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

EST 111 - Intermediate Facials & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 110.

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 210 - Advanced Massage & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 111.

Provides the student with advanced techniques in massage, skin care and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 - Facial Make-up

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): EST 110.

Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 - Hair Removal

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): EST 110.

Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

NAT 108 - Introduction of Manicuring/Pedicures/Artificial Nails

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 158 - Intermediate Manicuring/Pedicures/Artificial Nails

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 159 - Intermediate Manicuring/Pedicures/Artificial Nails II

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 208 - Advanced Manicuring/Pedicures/Artificial Nails

Credit(s): 4

Voc/Tech Clinic Hour(s): 8

Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.

Criminal Justice, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Criminal Justice prepares students to transfer as juniors to a four-year institution in Colorado to pursue a bachelor's degree in criminal justice. Graduates can seek a career in federal, state and local criminal justice agencies. This includes correctional institutions, juvenile corrections and varied treatment facilities, law enforcement agencies, courts, private security and forensic investigation work.

Program Description

Courses in the criminal justice degree provide an in-depth analysis of the three main components of the criminal justice system, law enforcement, the judicial system and corrections, with special emphasis on criminology, substantive criminal law and constitutional law. The AA degree coursework requires students learn reading and comprehension skills, written and verbal communication skills, and cultural diversity awareness.

Program Requirements

Students must meet all admission and application requirements at the receiving institution including the submission of all required documentation stated deadlines. In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Criminal Justice advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer. To earn an AA degree with Designation in Business, you must complete at least 60 college-level credits, as described below:

Disclaimer

If you have any prior arrests and/or drug/alcohol history, you should discuss this history with a Criminal Justice advisor prior to beginning courses toward this degree. Neither PCC nor the Criminal Justice Department or advisors will be held liable for your decision to continue in pursuit of the degree if you have such a history. Many criminal justice employers will not hire students with a past history of arrests or convictions regardless of the type of offense.

Your entrance into any criminal justice course of study, or your subsequent graduation, is no guarantee, explicit or implied, that you are employable in the criminal justice field.

Many criminal justice and related agencies require certain standards prospective employees must meet at the application stage. Job applications will ask if you have ever been arrested for any offense, either misdemeanor or felony. If you have, your prospective employer may deny your application. You may also be required to take psychological tests, lie detector tests, medical tests and physical fitness tests to determine if you are suited to a particular position.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31-33 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3** and a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1, prefer MAT 13: Introduction to Statistics, except:

University of Colorado

- University of Colorado - Colorado Springs **prefers** MAT 120 - Mathematics for the Liberal Arts: GT-MA1;

Colorado Mesa University

- Colorado Mesa University **requires** either MAT 120 - Mathematics for the Liberal Arts: GT-MA1 **or** MAT 121 - College Algebra: GT-MA1;

University of Northern Colorado

- University of Northern Colorado **requires** MAT 135 - Introduction to Statistics: GT-MA1

Natural and Physical Sciences (7-8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 **or** GT-SC2) * At least one of these courses must include a laboratory component (GT-SC1) *

Arts & Humanities (6 Credits)

(Select two courses from two different categories):

- GT-AH1, GT-AH2, GT-AH3, GT-AH4 *

Social and Behavioral Sciences (6 Credits)

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- select one additional GT Pathways Human Behavior, Culture, or Social Frameworks course (GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (27 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 125 - Policing Systems

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): CRJ 110.

Examines policing in the United States, including historical foundations, emerging issues and the relationship between law enforcement and the community. The various types of law enforcement agencies, their administrative practices, and the behavior of those involved in the delivery of police services are examined from the perspective of democratic values, racial and ethnic diversity, and societal perceptions of police effectiveness. Career requirements, including current and future trends, are also presented.

CRJ 145 - Correctional Process

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Examines the history and total correctional process from law enforcement through the administration of justice, probation, prisons, correctional institutions and parole. Also examines the principles, theories, phenomena and problems of the crime, society and the criminal justice system from the perspective of criminology and the criminal justice system in general. Emphasizes the role of sociology and other interdisciplinary approaches to the field of corrections and society's response.

Choose Two Courses from the Following (6 Credits)

CRJ 135 - Judicial Function

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Provides an overview of the structure and function of the dual American judicial system and the behavior of actors (judges/justices, lawyers, law clerks, interest groups, etc.) within the system. Emphasis is placed on the organization and administration of state and federal courts, criminal court procedures, juries, selection of judges, decision-making behavior of juries, judges and justices, and the implementation and impact of judicial policies.

CRJ 205 - Principles of Criminal Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110, CRJ 125, CRJ 135, CRJ 145, and ENG 121.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 122.

Focuses on common law and statutory law crimes, the Model Penal Code, elements defining crimes and penalties, defenses to criminal accusations, and definitions and distinctions between criminal and civil law.

CRJ 230 - Criminology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 145.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Provides an introduction to the study of crime, understanding the causes of crime, and examines, theoretical frameworks and theories to explain criminal behavior. Within a social context, consideration is given to how theories have emerged and understand how social context contributes to explanations of crime. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

Choose Three Courses from the Following (9 Credits)

Note: If these courses are applied to this second section of the Prescribed Curriculum (Additional Required Courses) for credit, they may **not** be applied to the first section of the Prescribed Curriculum (General Education Requirements) for credit.

CNG 258 - Digital Forensics

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): CNG 124.

Corequisite(s): CIS 220.

Exposes the student to the field of digital computer forensics and investigation. This class provides the student with methods to properly conduct a digital forensics investigation including a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analyses.

COM 217 - Group Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation. GT-SS3

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 125 - American State and Local Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the structure and function of state, county and municipal governments, including their relations with each other and with national government. Includes a study of Colorado government and politics. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

PSY 207 - Intro to Forensic Psychology

Credit(s): 3

Lecture Hour(s): 3

Introduction to Forensic Psychology is a course in an overview of Forensic Psychology. As such it explores both current research and practice in five areas. These areas are police psychology, criminal psychology, victimology, correctional psychology and the interface of psychology and the courts. The course facilitates an understanding of the numerous careers related to forensic psychology, how to prepare for them and current research and practice in each of the five broad areas of forensic psychology.

PSY 217 - Human Sexuality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Surveys physiological, psychological and psychosocial aspects of human sexuality. Topics include relationships, sexual identity and sexual health. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Electives (0-2 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado Mesa University (B.A. Criminal Justice; Criminal Justice or Law Enforcement concentrations)
- Colorado State University – Global Campus (B.S. Criminal Justice and Law Enforcement Administration; B.S Human Services)
- Metropolitan State University of Denver (B.S. Criminal Justice & Criminology)
- University of Colorado, Colorado Springs (B.A. Criminal Justice)
- University of Colorado, Denver (B.A. Criminal Justice)
- University of Northern Colorado (B.A. Criminal Justice)

Criminal Justice, AGS (with Transfer Articulation Agreement)

CIP 24.0102

See list of Department Chairs on the Personnel page.

Career Opportunities

The criminal justice program prepares you to transfer as a junior to a four-year institution to pursue a Bachelor of Science degree in sociology or criminal Justice, after which you can pursue a career in federal, state and local adult correctional institutions, juvenile corrections and treatment facilities, law enforcement, forensics, private security and private investigations.

Program Description

The criminal justice program provides an in-depth analysis of the three components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law,

procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathic awareness of cultural diversity.

Disclaimer

If you have any prior arrests and/or drug/alcohol history, you should discuss this history with a Criminal Justice advisor prior to beginning courses toward this degree. Neither PCC nor the Criminal Justice Department or advisors will be held liable for your decision to continue in pursuit of the degree if you have such a history. Many criminal justice employers will not hire students with a past history of arrests or convictions regardless of typology of offense.

Your entrance into any criminal justice course of study, or your subsequent graduation, is no guarantee, explicit or implied, that you are employable in the criminal justice field. Further, if you cannot be placed and/or remain in the course CRJ 280 - Cooperative Education/internship, after two good-faith attempts at placement, neither PCC nor its employees accept responsibility in respect to your inability to complete or meet fulfillment requirements of the degree.

Many criminal justice and related agencies require certain standards prospective employees must meet at the application stage. Job applications will ask if you have ever been arrested for any offense, either misdemeanor or felony. If you have, your prospective employer may deny your application. You may also be required to take psychological tests, lie detector tests, medical tests and physical fitness tests to determine if you are suited to a particular position.

Program Requirements

Entrance Requirements:

This is an open enrollment program.

Graduation Requirements:

A grade of "C" or higher is required in each course.

Total Credits: 60

General Education Core Requirements (39 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

Select two courses:

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

Choose nine credits from two different disciplines.

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

HUM 121 - Humanities: Early Civilization: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the prehistoric to the early medieval era. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 122 - Humanities: Medieval - Modern: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the medieval to the early modern era. This is a statewide Guaranteed Transfer course in the GT-AH2 category. GT-AH2

HUM 123 - Humanities: Modern World: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 205 - Ethnic Literature: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Focuses on significant texts by ethnic Americans, including African-American, Native American, Latino/a and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 212 - American Literature After Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the mid-19th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 121 - Music History Medieval Thru Classical Period: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music from the Middle Ages into the Classical period, including styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 122 - Music History Early Romantic Period to the Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music connecting the classical period to the Romantic period and following to the present. This course includes the study of styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 114 - Comparative Religions: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the major world religions from both the Eastern and Western world such as Hinduism, Buddhism, Confucianism, Taoism, Zoroastrianism, Judaism, Christianity, Islam, Bahá'í and influential preliterate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological) to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

SPA 211 - Spanish Language III: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 112 or Department Chair Approval.

Continues SPA 111 - Spanish Language I and SPA 112 - Spanish Language II in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish Language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

SPA 212 - Spanish Language IV: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 211 or Department Chair Approval.

Continues Spanish Language III in the development of increased functional proficiency at intermediate mid level in speaking, aural comprehension, reading, writing, and cultural competency in the Spanish language. This course is conducted predominantly in Spanish. This is a statewide Guaranteed Transfer course in the GT-AH4 category. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 211 - Development of Theatre Greek-Renaissance: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 212 - Development of Theatre Restoration to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

Social and Behavioral Sciences (9 Credits)

Select nine credits in at least two categories, one of which must be History:

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

GEO 106 - Human Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Introduces geographic perspectives and methods in the study of human societies by examining the spatial characteristics of populations, language, religion, ethnicity, politics, and economics. This course examines the relationships between physical environments and human societies. This is a statewide Guaranteed Transfer course in the GT-SS2 category. GT-SS2

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 247 - 20th Century World History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Investigates the major political, social and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

POS 105 - Introduction to Political Science: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and nondemocratic governments and processes, and international relations. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 205 - Psychology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines gender comparisons in work, courtship, family life and sexual behavior throughout the lifespan. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 217 - Human Sexuality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Surveys physiological, psychological and psychosocial aspects of human sexuality. Topics include relationships, sexual identity and sexual health. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 238 - Child Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the growth and development of the individual from conception through childhood, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 205 - Sociology of Family Dynamics: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles. This course is one of statewide Guaranteed Transfer courses, GT-SS3.

SOC 215 - Contemporary Social Problems: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores current social issues that result in societal problems. It focuses on such issues as civil liberties, gender discrimination, substance abuse, crime, poverty and social change. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 216 - Sociology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Gives students the theoretical and factual background necessary to understand the phenomenon of gender stratification in American and other cultures. Students will be exposed to a history of gender stratification in human societies, theoretical explanations for this and insights into the consequences of gender differentiation in our world today. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

WST 200 - Introduction to Women's Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature and function of women in society from an interdisciplinary perspective, focusing on the similarity and diversity of women's experience over time and across cultures. The course will examine topics such as sex role, socialization, political and philosophical perspectives on women's issues, and women's accomplishments in history, art, literature, science, health issues and the family. Students will gain an awareness of the limitations of traditional scholarship on women and gain a means of practical application of the new scholarship on women's roles and nature. This course is one of the statewide Guaranteed Transfer Courses, GT-SS3.

Core Curriculum Requirements (21 Credits)

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 125 - Policing Systems

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): CRJ 110.

Examines policing in the United States, including historical foundations, emerging issues and the relationship between law enforcement and the community. The various types of law enforcement agencies, their administrative practices, and the behavior of those involved in the delivery of police services are examined from the perspective of democratic values, racial and ethnic diversity, and societal perceptions of police effectiveness. Career requirements, including current and future trends, are also presented.

CRJ 135 - Judicial Function

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Provides an overview of the structure and function of the dual American judicial system and the behavior of actors (judges/justices, lawyers, law clerks, interest groups, etc.) within the system. Emphasis is placed on the organization and administration of state and federal courts, criminal court procedures, juries, selection of judges, decision-making behavior of juries, judges and justices, and the implementation and impact of judicial policies.

CRJ 145 - Correctional Process

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Examines the history and total correctional process from law enforcement through the administration of justice, probation, prisons, correctional institutions and parole. Also examines the principles, theories, phenomena and problems of the crime, society and the criminal justice system from the perspective of criminology and the criminal justice system in general. Emphasizes the role of sociology and other interdisciplinary approaches to the field of corrections and society's response.

CRJ 205 - Principles of Criminal Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110, CRJ 125, CRJ 135, CRJ 145, and ENG 121.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 122.

Focuses on common law and statutory law crimes, the Model Penal Code, elements defining crimes and penalties, defenses to criminal accusations, and definitions and distinctions between criminal and civil law.

CRJ 210 - Constitutional Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 135.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Focuses on the powers of government as they are allocated and defined by the United States Constitution. The course includes intensive analysis of United States Supreme Court decisions.

CRJ 230 - Criminology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 145.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Provides an introduction to the study of crime, understanding the causes of crime, and examines, theoretical frameworks and theories to explain criminal behavior. Within a social context, consideration is given to how theories have emerged and understand how social context contributes to explanations of crime. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado State University Global (BS Criminal Justice and Law Enforcement Administration)
- Colorado State University, Pueblo (Sociology with a Criminology emphasis)

Culinary Arts Management, AAS

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Culinary Arts Management Requirements (46 Credits)

CIS 109 - Management Software and Technical Applications

Credit(s): 1

Vocational Lab Hour(s): 1.50

Introduces the use of computer management software and the concepts of software applicable to various technology programs. Covers features of selected software, terminology related to hardware, software and online resources (which include PC, word processing, databases, spreadsheets and e-mail). Provides opportunities for practical application of computer skills.

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 125 - Introduction to Foods

Credit(s): 4

Vocational Lab Hour(s): 6

Corequisite(s): CUA 101

Provides students with the fundamental principles and practices of a commercial kitchen, including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. Focuses on the fundamental principles and production of stocks, soups, sauces, gravies and thickening agents. Principles of cold food and nonalcoholic beverage preparation and production in a commercial kitchen. Basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Emphasizes the effects of seasonings and cooking methods of vegetable products and basic hot food preparation. Students prepare breakfast orders similar to those ordered in restaurants, with egg cookery and dairy products emphasized.

CUA 129 - Center of the Plate

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 125

Enables the student to plan and prepare a variety of complete meals in a commercial kitchen, focusing on center of the plate entrees including meat, poultry, seafood and vegetarian items. Meat, poultry and seafood handling and preparation, including basic forms and cuts, principles used for selecting products and appropriate cooking methods are emphasized. Vegetarian entrees are also covered, including methods for preparation and cooking of various types of potatoes, rice, legumes, pastas, casseroles and grain products, with special attention given to complimentary proteins.

CUA 136 - Alcohol and Bartending Management

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 125

Prepares students for the preparation and service of alcoholic beverages. Focuses on mixology procedures, wine and champagne service, purchasing and storage procedures, cost controls, customer relations, legal responsibilities of lounge operations and ServSafe alcohol practices.

CUA 154 - Introduction to the Business of Catering

Credit(s): 3

Lecture Hour(s): 3

Provides students with an overview of the catering industry. Special attention will be given to catering from a customer's perspective. Students completing this course should be able to plan and implement a variety of catering functions. Included in the course will be some experiential learning opportunities as a result of participation in actual college catered functions on campus.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

CUA 233 - Advanced Line Prep and Cookery

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101 CUA 129

Focuses on preparation of complete meals to order. Emphasizes cooking center of the plate items such as meat, fish, seafood and poultry, as well as accompaniment foods such as starches and vegetables. Enables the student to prepare sauces, entrée salads, edible garnishes and meals determined by the menu prepared for a dining room setting. Emphasizes line supervisor, sauté cook, pantry cook, cook's helper and runner responsibilities.

CUA 255 - Supervision in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the current/future foodservice operator, manager, or supervisor with a solid foundation for developing communication skills, planning and decision-making skills, and skills for creating a goal-oriented environment utilizing management principles in the selection, training, evaluating, delegating, motivating, rewarding and disciplining employees. Stresses skills for success through people development.

CUA 261 - Cost Controls

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107, CIS 109, CIS 118, or Department Chair Approval

Corequisite(s): MAT 107.

Provides students with the opportunity to learn the types of costs usually found in the food service industry. Students will learn to apply control techniques to a variety of costs and sales. They will also learn to interpret a variety of financial reports which reflect the relationship between costs and income. Students may take the national Cost Controls test from the National Restaurant Association Education Foundation. If they pass the test with 75% or higher, they will receive a national certificate for the course.

CUA 262 - Purchasing for the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Emphasizes controlling costs as applied to the selection and procurement of food and supply items. Covers selection and procurement of food and supplies, supplier selection and distribution systems, including the forces affecting them. Students will take a nationally recognized test and may receive a certificate from the Education Foundation, the educational arm of the National Restaurant Association.

CUA 281 - Internship

Credit(s): 2-6

Internship Hour(s): 6-18

Prerequisite(s): MAT 107, CUA 157, CUA 190, CUA 233, CUA 261 or, HOS 123, HOS 207, and CIS 118; or Department Chair Approval.

Places students in an actual work situation where they participate in the operation of a foodservice establishment. Hours of work are arranged by the site supervisor and the intern. The number of hours required are determined by the number of credits the course carries.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

Culinary Arts Production, AAS

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 62

Degree Requirements

General Education Requirements (15 Credits)

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Culinary Arts Production Requirements (47 Credits)

CIS 109 - Management Software and Technical Applications

Credit(s): 1

Vocational Lab Hour(s): 1.50

Introduces the use of computer management software and the concepts of software applicable to various technology programs. Covers features of selected software, terminology related to hardware, software and online resources (which include PC, word processing, databases, spreadsheets and e-mail). Provides opportunities for practical application of computer skills.

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 125 - Introduction to Foods

Credit(s): 4

Vocational Lab Hour(s): 6

Corequisite(s): CUA 101

Provides students with the fundamental principles and practices of a commercial kitchen, including safety and

sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. Focuses on the fundamental principles and production of stocks, soups, sauces, gravies and thickening agents. Principles of cold food and nonalcoholic beverage preparation and production in a commercial kitchen. Basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Emphasizes the effects of seasonings and cooking methods of vegetable products and basic hot food preparation. Students prepare breakfast orders similar to those ordered in restaurants, with egg cookery and dairy products emphasized.

CUA 129 - Center of the Plate

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 125

Enables the student to plan and prepare a variety of complete meals in a commercial kitchen, focusing on center of the plate entrees including meat, poultry, seafood and vegetarian items. Meat, poultry and seafood handling and preparation, including basic forms and cuts, principles used for selecting products and appropriate cooking methods are emphasized. Vegetarian entrees are also covered, including methods for preparation and cooking of various types of potatoes, rice, legumes, pastas, casseroles and grain products, with special attention given to complimentary proteins.

CUA 145 - Introduction to Baking

Credit(s): 4

Vocational Lab Hour(s): 6

Provides the student with the fundamentals of baking terminology, principles of baking, and the characteristics of the functions of the main ingredients that is used in bakery production. Orients student to use commercial equipment and tools and provides the student with the fundamentals of basic yeast-raised production and quick breads, white bread, rolls, variety grain breads, specialty breads, sweet yeast-raised products and quick bread, fundamentals of basic cake, pie, pastry and cookie production. Enables the student to produce a variety of cakes, pies, pastries, cookies and assorted dessert items in a commercial kitchen.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

CUA 210 - Advanced Cuisine and Garde Manger

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101, CUA 129

Focuses on the preparation of food display items for buffets and banquets such as fancy garnishes, fruit and vegetable carvings, canapés, party trays, etc. Includes pates, galantines, terrines, and choud froid items. Incorporates creation of food artistry show pieces meeting competition guidelines developed by the American Culinary Federation. Covers the preparation of a regional, ethnic or cultural culinary presentation based upon personal research.

CUA 233 - Advanced Line Prep and Cookery

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101 CUA 129

Focuses on preparation of complete meals to order. Emphasizes cooking center of the plate items such as meat, fish, seafood and poultry, as well as accompaniment foods such as starches and vegetables. Enables the student to prepare sauces, entrée salads, edible garnishes and meals determined by the menu prepared for a dining room setting. Emphasizes line supervisor, sauté cook, pantry cook, cook's helper and runner responsibilities.

CUA 234 - Advanced Line Planning

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 233 or Department Chair Approval.

Teaches students to plan a variety of menus to be prepared in CUA 233 - Advanced Line Prep and Cookery. They will also perform the duties of a supervisor in charge of line cookery. They will be responsible for thorough knowledge of menu items including all methods of cookery. Students will order, pre-prepare, store and organize food and supply items for students in the Advanced Line Prep class. They will also organize work (learning) stations for students in the Advanced Line Prep Class. They will learn how to substitute menu items if there are difficulties in equipment or shortages of food items or personnel. Examples of other areas of learning include inventory, ordering, storage and issuing. By the conclusion of this class, students will be able to supervise an entire line prep station.

CUA 236 - Advanced Baking

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 101, CUA 145

Provides students the opportunity to refine their baking skills in the areas of desserts, yeast breads, garnishing and presentation of baked products. Enables the student to bake, garnish and present a variety of baked goods. These products are prepared and displayed for the public in various locations in the college.

CUA 255 - Supervision in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the current/future foodservice operator, manager, or supervisor with a solid foundation for developing communication skills, planning and decision-making skills, and skills for creating a goal-oriented environment utilizing management principles in the selection, training, evaluating, delegating, motivating, rewarding and disciplining employees. Stresses skills for success through people development.

CUA 261 - Cost Controls

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107, CIS 109, CIS 118, or Department Chair Approval

Corequisite(s): MAT 107.

Provides students with the opportunity to learn the types of costs usually found in the food service industry. Students will learn to apply control techniques to a variety of costs and sales. They will also learn to interpret a variety of financial reports which reflect the relationship between costs and income. Students may take the national Cost Controls test from the National Restaurant Association Education Foundation. If they pass the test with 75% or higher, they will receive a national certificate for the course.

CUA 281 - Internship

Credit(s): 2-6

Internship Hour(s): 6-18

Prerequisite(s): MAT 107, CUA 157, CUA 190, CUA 233, CUA 261 or, HOS 123, HOS 207, and CIS 118; or Department Chair Approval.

Places students in an actual work situation where they participate in the operation of a foodservice establishment. Hours of work are arranged by the site supervisor and the intern. The number of hours required are determined by the number of credits the course carries.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

Cyber Defense Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 28

Certificate Requirements

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

CNG 256 - Vulnerability Assessment I

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 220, CNG 124, and CNG 132.

Presents students with an introduction to vulnerability assessment. Vulnerability assessment skills are necessary to understand how companies address vulnerabilities in the business environment. Students gain a better understanding of how information technology security integrates into the corporate world and how a balance must be achieved between security and functionality.

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

Dental Hygiene, AAS

CIP 51.0602

See list of Department Chairs on the Personnel page.

Career Opportunities

The Dental Hygiene program prepares you for a career in a variety of professional settings. The most familiar setting is the private dental office, where hygienists perform critical services to detect and prevent diseases of the mouth. Beyond the private dental office, you can find employment in nursing homes and long-term care facilities, hospitals, corporate health facilities, school systems and public health clinics. You may also work as an educator or researcher.

Program Description

The AAS Degree prepares you to provide dental hygiene services to patients and educate them in aspects of preventive dentistry. In our on-campus clinic, you will provide preventive and therapeutic services for patients under the supervision of Dental Hygiene faculty.

In the traditional role of dental hygienist, training includes prophylaxis, patient data gathering for dental hygiene diagnosis and treatment planning, fluoride treatment, sealant application, radiographic examination and nutritional counseling. In the expanded role of the dental hygienist, training includes treatment of periodontally-involved patients and treatment of handicapped, institutionalized and other medically compromised patients. You also learn to perform local anesthesia and administer nitrous oxide.

Because of the high level of personal and professional responsibility required of a dental hygienist, you must have integrity, maturity, individual motivation, good interpersonal skills, excellent manual dexterity and a solid science and general studies academic background to be successful in this program. We are firmly committed to fostering your intellectual growth and to developing well-qualified dental hygienists with high professional standards and ethics.

The Mini-Certificate in Local Anesthesia and Nitrous Oxide/Oxygen Sedation provides you with knowledge of the theory and practice of local anesthesia and nitrous oxide/oxygen sedation. This program teaches you to administer local anesthetics and nitrous oxide proficiently and safely. The administration of local anesthesia and nitrous oxide/oxygen sedation may be performed by licensed dental hygienists under the Colorado State Dental Practice Act. You must be currently enrolled in the Dental Hygiene program to enter this program.

Program Requirements

Entrance Requirements:

You must complete a current Dental Hygiene program application and meet all minimum requirements and application timelines. The application is available through the Dental Hygiene program, at the PCC Dental Hygiene website or in Admissions & Records. You should seek advisement from program faculty for assistance with applications, minimum requirements and required general education courses for admissions. In addition, all students entering the program will need a current CPR card good for 2 years.

If you are an AAS Dental Hygiene student, you must complete all General Education/Related Requirements.

Note: All students are accepted provisionally pending completion of a criminal background check. Disclaimer: The Colorado Board of Dental Examiners requires a dental hygienist applying for licensure to answer questions concerning felony history, excessive use or abuse of controlled substances/alcoholic beverages (within the last five years) and any

physical or mental condition that may affect the ability to practice dental hygiene. Other questions asked by the State Board pertain to an applicant's history of malpractice judgment and any disciplinary action by any government or private agency. The PCC Department of Dental Hygiene assumes no responsibility for the denial of licensure by the Colorado State Board of Dental Examiners.

Total Credits: 92.5

* Within five years of application

Degree Requirements

General Education Requirements (28 Credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 109 - General, Organic, and Biochemistry

Credit(s): 4

Lecture Hour(s): 4

Focuses on fundamentals of inorganic, organic and biochemistry primarily for students in health science, non-science majors and/or students in the occupational and health related career areas. Includes the study of measurement, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base chemistry, gas laws, condensed states of matter and nuclear chemistry, nomenclature of organic compounds, properties of different functional groups, nomenclature of various biological compounds, their properties and biological pathways. This course has no lab and may not be transferable.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum Requirements (64.5 Credits)

First Year-Fall Semester (14 Credits)

DEH 101 - Preclinical Dental Hygiene Lecture

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces basic dental hygiene theory, instrumentation, and patient care assessment. Focuses on the application of diagnostic, preventive, and therapeutic procedures in a wide variety of areas related to clinical practice, health promotion, and disease prevention.

DEH 102 - Preclinical Dental Hygiene Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces the entry-level dental hygiene student to fundamental procedures and techniques to include instrumentation, infection control, and patient assessment. Provides a variety of clinical learning experiences to develop basic skills and knowledge for entry into the dental hygiene profession.

DEH 103 - Dental Anatomy and Histology

Credit(s): 3

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces the general anatomy of the face including terminology, anatomic landmarks, and tooth identification. Specific focus is placed on the anatomical and histologic features of the teeth and other structures of the oral cavity. Introduction to the embryology of the face, oral, and nasal cavities is presented, as well as development of the teeth and histological features of the various components of the teeth and surrounding structures.

DEH 104 - Dental Radiology

Credit(s): 3

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces principles of x-radiation production and safety factors; application and theory of properly exposing, processing, mounting and evaluating radiographs; identification of normal anatomic landmarks and pathologic conditions. Focuses on utilization of the laboratory in performing procedures necessary to produce quality radiographs.

DEH 105 - Introduction to Dental Hygiene

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Provides the first year dental hygiene student with the basic knowledge, theory, and skill necessary to advance to subsequent clinical dental hygiene courses. This course includes an introduction to the principles of basic instrument recognition, expected professional and ethical behaviors, HIPAA and FERPA compliance, OSHA standards for infection control, dental software systems, oral hygiene instruction, dental hygiene care planning for the patient, and proper consent form documentation.

DEH 202 - Applied Nutrition in Dentistry

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Gives students a fundamental understanding of general nutrition with an emphasis on the interrelationship between

nutrition and dental health. Focuses on recognizing nutritional deficiencies and how to conduct and evaluate nutritional surveys on patients.

First Year-Spring Semester (13.5 Credits)

DEH 111 - Dental and Medical Emergencies

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Introduces the management of emergency situations in the dental office setting. Explains the management of emergency situations with an emphasis on prevention and identification of potential medical emergencies that can occur in the dental office or during dental treatment. Provides practical skills applicable to dental hygienists and the scope of responsibility for medical emergency management as dictated by state dental practice law. Includes content and use of emergency kits, oxygen support systems, use of ASA classification to evaluate risk, and emergency management simulations.

DEH 122 - Periodontics I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Introduces the principles of periodontics. Focuses on recognition of the tissues in health and disease, macro and microanatomy of the periodontium, and histopathology of periodontal diseases and other related gingival conditions. Provides the theory and discussion of periodontal assessment, etiology, epidemiology, inflammatory process/immune response, and the AAP classification system.

DEH 123 - Head & Neck Anatomy

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Analyzes the anatomy and function of the head and neck with emphasis on the muscles of mastication and facial expression, bones of the head and neck, the temporomandibular joint, lymphatic, glandular system, vascular supply, nervous system, and the oral cavity.

DEH 126 - Dental Materials

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Examines the science of dental materials providing a sound knowledge of the use and function of these materials in clinical practice. Covers didactic and laboratory experiences of the physical properties, chemistry, and clinical applications of the materials used in the practice of dentistry.

DEH 153 - Clinical Theory of Dental Hygiene I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Builds on the broad theoretical basis provided in DEH 101 and DEH 102. Focuses on enhancing patient assessment skills, instrumentation and additional information on preventative and prophylactic clinical procedures.

DEH 170 - Clinical Practice of Dental Hygiene I

Credit(s): 4.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides clinical experience in patient skills assessment, instrumentation and additional preventative and prophylactic clinical procedures.

Second Year-Summer Semester (6 Credits)

DEH 133 - Local Anesthesia

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 111, DEH 123, current enrollment in Dental Hygiene program.

Provides a working knowledge of the theory and practice of local anesthesia as applied to the practice of dentistry/dental hygiene. Emphasizes mastery of the armamentarium and techniques of regional anesthesia. Covers the knowledge and skills necessary to administer local anesthetics proficiently and safely.

DEH 134 - Advanced Clinical Skills

Credit(s): 1

Lecture Hour(s): 0.70

Voc/Tech Clinic Hour(s): 0.60

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on dental hygiene theory and laboratory experiences with major topics related to advanced clinical skills, including advanced instrumentation fulcrums, root morphology, periodontal files, periodontal file sharpening, mini curettes, after five curettes, nabors probe, universal focus spray ultrasonics and scaling implants.

DEH 138 - Nitrous Oxide/Oxygen Sedation

Credit(s): 1

Lecture Hour(s): 0.80

Voc/Tech Clinic Hour(s): 0.40

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Provides a working knowledge of the latest equipment and methods of nitrous oxide/oxygen sedation administration in the dental office.

DEH 171 - Clinical Practice of Dental Hygiene I-A

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Current enrollment in Dental Hygiene program.

Continues patient care sessions for the performance of traditional dental hygiene treatment. Enables the student to provide treatment to periodontally involved patients utilizing advanced instrumentation and power scaling.

Second Year Fall Semester (17 Credits)

DEH 132 - Applied Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Examines general pharmacology and discusses relevant drugs that may influence the management of dental hygiene patients. Completion of the course enables students to perform safe and effective evaluations of patients for dental hygiene treatment.

DEH 204 - Community Dental Health I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Course provides instruction in the concepts, methods and issues of dental public health. Emphasis is placed on evidence-based criteria for effective promotion and prevention of dental disease in the public health setting. Concepts of dental health education and program planning in the community setting are reinforced through case-based materials, including methods of assessment, planning, implementation and evaluation of effectiveness. Course activities will reinforce skills in speaking and writing effectively in preparation for the subsequent community dental health field experience course.

DEH 213 - General and Oral Pathology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the fundamentals of general pathology and the disease process. Covers oral pathology with emphasis on recognition and identification of pathologic conditions that most frequently occur around the oral cavity. Helps students identify appropriate referral mechanisms to render a definitive diagnosis.

DEH 242 - Periodontics II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): DEH 122.

Continues to explore theoretical/clinical preparations with emphasis on dental hygiene process of care, treatment planning, nonsurgical treatment, evaluation of treatment and maintenance needs of the periodontal patient. Develops research and decision-making skills with use of library and Internet resources relating to risk factors, etiologic agents and treatment modalities. Includes comprehensive periodontal assessment, supplemental diagnostics, periodontal pharmacology and evidence-based treatment planning.

DEH 268 - Clinical Theory of Dental Hygiene II

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides the didactic theory for clinical practice of dental hygiene skills at the beginning of the second year of dental hygiene curriculum. Builds on clinic theory from first year curriculum to provide the knowledge base needed for treatment of patients with more advanced periodontal disease and medical/health factors. Focuses on periodontal charting and documentation, interpretation of periodontal factors on radiographs, use of treatment planning in the dental hygiene process of care, legal parameters of record keeping and informed consent, use of oral photography, application of sealants, treatment of dental hypersensitivity, application of chemotherapeutics and professional oral irrigation, application of ergonomics in dentistry, clinical dental hygiene treatment considerations for patients with history of cardiac complications and diabetes.

DEH 270 - Clinical Practice of Dental Hygiene II

Credit(s): 6

Voc/Tech Clinic Hour(s): 12

Prerequisite(s): Current enrollment in Dental Hygiene program.

Covers patient care sessions for the performance of traditional dental hygiene treatment. Continues and expands periodontal patient care and special patient care sessions. Focuses on clinical competence in margination and polishing of restorations, nutrition counseling, oral irrigation, chemotherapeutics and OSHA compliance.

Second Year-Spring Semester (14 Credits)

DEH 221 - Ethics and Practice Management

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the transition from an educational environment to a working dental business. Enables the student to learn management skills of operating a dental office. Emphasizes opportunities for self-exploration in development of personal and professional goals. Examines professional ethics, legal issues and the relationship to the licensed practice of dental hygiene.

DEH 225 - Community Dental Health II: Field Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 204.

Provides practical application of community dental health theory and opportunities to conduct needs assessments on a variety of populations. Emphasizes meeting the educational needs of specific populations through program planning, implementation and evaluation. Incorporates supervised field experiences in low-income, school and other public facilities, as well as private health and education oriented organizations.

DEH 259 - Advanced Dental Hygiene Theory

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the care of patients with special needs, such as physical and mental disabilities and systemic conditions. Emphasizes patient management and treatment considerations.

DEH 271 - Clinical Practice of Dental Hygiene III

Credit(s): 6

Voc/Tech Clinic Hour(s): 12

Prerequisite(s): Current enrollment in Dental Hygiene program.

Continues patient care session with emphasis on attaining a level of competency and efficiency for successful performance in clinical board exams and private practice. Focuses on clinical skill development in tobacco cessation, product selection, patient communications, curettage and Special Topics developed patient treatments. Provides elective extramural clinical sites for additional practice.

DEH 282 - Periodontics III

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): DEH 122.

Course provides comprehensive dental hygiene clinical management techniques for periodontal patients supported by application of basic clinical research sciences. Focus is on the therapy component of periodontics, including instructional sessions covering the general principles of periodontal surgery, the surgical management of soft tissues and osseous defects, wound healing, implants, and the role of occlusion in periodontal therapy.

DEH 285 - Clinical Theory of Dental Hygiene III

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Serves as the Capstone course of the final semester of a two-year curriculum. Prepares the student for two major goals - basic competence for transition to provision of dental hygiene services in private practice and the ability to successfully pass both written National Boards examinations and regional dental hygiene clinical examinations. Emphasizes the application of case-based learning. Major topics include cosmetic bleaching, air powered polishing devices, application of the re-evaluation process in treatment planning for periodontally involved cases, preparation for the CRDTS regional clinical exam process, application of an effective tobacco cessation process, technique and process for gingival curettage, technique and process for amalgam polishing and margination, care of cosmetic dental restorations, and maintenance of implants.

Optional Recommended Courses (2.5 Credits)

DEH 136 - Clinical Dental Roentgenology

Credit(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current enrollment in Dental Hygiene program.

Enhances clinical competence of basic radiographic principles including intra-oral, positioning techniques, exposure factors, bisecting technique, vertical bitewing survey and management of anatomical deviations.

DEH 266 - National Boards Review

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides formal review sessions for second-year dental hygiene students preparing to sit for the National Board Examination.

Dental Hygiene, BAS

CIP 51.0602

See list of Department Chairs on the Personnel page.

Career Opportunities

This program prepares the licensed dental hygienist to academically expand their knowledge and career opportunities in the professions of education, program administration, public health, research or sales.

Program Description

This Bachelor of Applied Science Degree Completion Program is designed for licensed dental hygienists who have completed an associate degree from a regionally accredited institution that is also accredited by the Commission on Dental Accreditation. The goal of the Registered Dental Hygienist (RDH) to BASDH program is to work with each student to enhance knowledge and provide expanded career opportunities. Obtaining a BAS degree may also provide the lifelong learner the knowledge base to prepare them academically should they wish to pursue a master's degree for additional career opportunities.

Program Requirements

Entrance Requirements:

Students must complete a current Dental Hygiene BAS program application and meet all minimum program requirements and application timelines. The application is available on the Dental Hygiene BAS website. Applicants should also seek advisement from the program director for assistance with meeting all admission requirements. In addition, students must meet the following admissions requirements:

1. Graduate from a regionally accredited dental hygiene program that is also accredited by the Commission on Dental Accreditation.
2. Pass the National Board Dental Hygiene Exam.
3. Hold a current dental hygiene license in a US state.

Total Credits: 27

General Education Requirements (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Curriculum Requirements (24 Credits)

First Fall Semester

HPR 403 - Critical Review of Healthcare Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Teaches how to evaluate and analyze published literature using a scientific approach to develop medical best practices, formulates and research clinical questions to effectively participate in medical discussions.

DEH 301 - Advanced Careers in Dental Hygiene

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

Provides an overview of the career options available to the dental hygienist with an advanced degree. In depth analysis of alternative careers to include: public health systems, dental hygiene education, research, sales and marketing, oral health policy and oral health care delivery systems.

First Spring Semester

DEH 455 - Topics in Dental Public Health

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the program.

Provides a comprehensive overview in public health as it relates to the field of dentistry. Surveys and analyzes oral health services, community programs, disease prevention, policy, ethics and issues facing the profession today.

DEH 341 - Clinical Teaching Methodologies

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

This course provides students the opportunity to compare and contrast practical experience as it relates to dental hygiene clinical instruction. Students will apply teaching methodologies, psychomotor learning theories, feedback techniques and motivational strategies to direct student learning.

Second Fall Semester

DEH 355 - Social and Behavioral Determinants of Oral Health

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission into the program.

Evaluate the complexity and interplay of social and physical environmental structures, economic systems and behavioral patterns that affect overall health with a focus on health services, health beliefs and their impact on health-related behavior choices.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

Second Spring Semester

DEH 489 - Capstone: Dental Hygiene

Credit(s): 5

Seminar Hour(s): 5

Prerequisite(s): MAT 135 and admission to the program.

Provides the student an opportunity to participate in a cumulative learning experience that integrates theory and applies previously learned knowledge and skill. The student will design, implement and evaluate a project related to their specific area of interest.

Electives if Needed for Institutional Credit

- Any 300 or 400 level HPR BAS course

Miscellaneous Information

¹ Course taught in the first eight weeks of the semester

² Course taught in the second eight weeks of the semester

Digital Video Editing Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 18

Certificate Requirements

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

MGD 264 - Digital Video Editing II

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): MGD 164

Looks at the more complex and advanced techniques of digital video editing. Areas of editing such as masking, filtering, blue/green screening, track mattes and image mattes will be examined. Students will produce a movie project in this class and discuss practical ways to distribute to various audiences.

RTV 102 - Beginning Television

Credit(s): 3

Vocational Lab Hour(s): 4.5

Focuses on principles and techniques of television production in theory and the approach of studio and production. Emphasizes producing television programs, beginning with a concept through script to actual studio production, pre-production and post-production.

RTV 208 - Basic Video Production

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): RTV 102.

Introduces basic videotape production and editing on linear and nonlinear editing systems. Covers producing, writing, directing, lighting, editing and shooting techniques. Enables the student to gain experience in paint and character generator graphics, image processing, transitions and techniques using the Avio and Casablanca nonlinear editors.

Dining Service Mini-Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 16

Certificate Requirements

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 136 - Alcohol and Bartending Management

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 125

Prepares students for the preparation and service of alcoholic beverages. Focuses on mixology procedures, wine and champagne service, purchasing and storage procedures, cost controls, customer relations, legal responsibilities of lounge operations and ServSafe alcohol practices.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

Early Childhood Education Director Certificate

CIP 13.1210

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 30

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 205 - Nutrition, Health and Safety

Credit(s): 3

Lecture Hour(s): 3

Focuses on nutrition, health and safety as key factors for optimal growth and development of young children. This course includes nutrition knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families for early childhood educators. This course addresses children ages birth through 12 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 240 - Administration of Early Childhood Care and Education Programs

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Provides foundational knowledge in early childhood program business operations, program development and evaluation. This course covers administrative skills, ethical decision making, risk and resource management, and components of quality Early Childhood Education (ECE) programs serving children ages birth through 12 years.

ECE 241 - Administration: Human Relations for Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Focuses on the human relations component of an early childhood professional's responsibilities. This course includes director-staff relationships, staff development, leadership strategies, family-professional partnerships and community interaction.

ECE 260 - The Exceptional Child

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of critical elements related to educating young children with disabilities or special needs in the

early childhood setting. Topics include typical and atypical development; legal requirements; research-based practices related to inclusion; teaming and collaboration; and accommodations and adaptations. This course examines how a disability or special need may impact a young child's learning process. This course addresses children ages birth through 8 years.

Early Childhood Education, AAS

CIP 13.1210

See list of Department Chairs on the Personnel page.

Program Description

This program prepares you to become a productive, caring, and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive, and physical development. Clses also focus on cultrual diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Total Credits: 60

Degree Requirements

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

OR

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

OR

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations.

Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

- Arts and Humanities **Credit(s): 3**
- Social and Behavioral Sciences **Credit(s): 3**

Core Curriculum Requirements (39 Credits)

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 205 - Nutrition, Health and Safety

Credit(s): 3

Lecture Hour(s): 3

Focuses on nutrition, health and safety as key factors for optimal growth and development of young children. This course includes nutrition knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families for early childhood educators. This course addresses children ages birth through 12 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 226 - Creativity and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Provides an emphasis on encouraging and supporting creative self-expression and problem-solving skills in children. Explores creative learning theories and research. Focuses on developmentally appropriate curriculum strategies in all developmental domains. Addresses ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 240 - Administration of Early Childhood Care and Education Programs

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Provides foundational knowledge in early childhood program business operations, program development and evaluation. This course covers administrative skills, ethical decision making, risk and resource management, and components of quality Early Childhood Education (ECE) programs serving children ages birth through 12 years.

ECE 241 - Administration: Human Relations for Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Focuses on the human relations component of an early childhood professional's responsibilities. This course includes director-staff relationships, staff development, leadership strategies, family-professional partnerships and community interaction.

ECE 260 - The Exceptional Child

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of critical elements related to educating young children with disabilities or special needs in the early childhood setting. Topics include typical and atypical development; legal requirements; research-based practices related to inclusion; teaming and collaboration; and accommodations and adaptations. This course examines how a disability or special need may impact a young child's learning process. This course addresses children ages birth through 8 years.

ECE 288 - Practicum: Early Childhood Education

Credit(s): 3

Lecture Hour(s): 1

Practicum Hour(s): 4

Prerequisite(s): Successful completion of ECE 101 and ECE 102

Provides students with advanced field experience opportunities in early childhood education programs.

Electives (6 Credits)

Select two courses:

ECE 125 - Science/Math and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Examines 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.

ECE 256 - Working with Parents, Families, and Community Systems

Credit(s): 3

Lecture Hour(s): 3

Examines 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. Effective activities and resources to support family involvement in the classroom will be created. This course addresses children ages birth through 8 years.

EDU 221 - Introduction to Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on the historical, social, political, philosophical, cultural and economic forces that shape the United States public school system. Includes current issues of educational reform, technology as it relates to education and considerations related to becoming a teacher in the state of Colorado. Special interest will be paid to the topic of diversity in the K-12 school system.

LIT 255 - Children's Literature

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the Composition I level

Examines the criteria for selecting appropriate literature for children. Explores literature through a variety of genres, age levels, values taught through literature, and literary and artistic qualities of various texts GT:AH2

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

Early Childhood Entry Level Mini-Certificate

CIP 13.1210

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 6

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

or

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

Choose One Course Listed Below (3 Credits)

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 125 - Science/Math and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Examines 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.

ECE 205 - Nutrition, Health and Safety

Credit(s): 3

Lecture Hour(s): 3

Focuses on nutrition, health and safety as key factors for optimal growth and development of young children. This course includes nutrition knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families for early childhood educators. This course addresses children ages birth through 12 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 226 - Creativity and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Provides an emphasis on encouraging and supporting creative self-expression and problem-solving skills in children. Explores creative learning theories and research. Focuses on developmentally appropriate curriculum strategies in all developmental domains. Addresses ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 256 - Working with Parents, Families, and Community Systems

Credit(s): 3

Lecture Hour(s): 3

Examines 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. Effective activities and resources to support family involvement in the classroom will be created. This course addresses children ages birth through 8 years.

or

ECE 260 - The Exceptional Child

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of critical elements related to educating young children with disabilities or special needs in the

early childhood setting. Topics include typical and atypical development; legal requirements; research-based practices related to inclusion; teaming and collaboration; and accommodations and adaptations. This course examines how a disability or special need may impact a young child's learning process. This course addresses children ages birth through 8 years.

Early Childhood Teacher Certificate

CIP 13.1210

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 18

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

Early Childhood Teacher Education, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Early Childhood Education (ECE) program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an early childhood teacher or director in the field of early childhood education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Before beginning to take classes, you must meet with PCC's Teacher Education faculty advisor to plan a course of study and to examine the list of approved credits for each four-year institution in Colorado.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

Total Credits: 60

General Education Core Requirements (33 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (4 Credits)

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors.

Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (6 Credits)

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

or

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

or

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 225 - Introduction to Shakespeare: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

Social and Behavioral Sciences (6 Credits)

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

History (3 Credits)

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

or

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Additional Required Courses (18 Credits)

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 256 - Working with Parents, Families, and Community Systems

Credit(s): 3

Lecture Hour(s): 3

Examines 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. Effective activities and resources to support family involvement in the classroom will be created. This course addresses children ages birth through 8 years.

Electives (6 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Early Childhood Education)
- Colorado Mesa University (B.A. Early Childhood Education – Early Childhood Special Education)
- Colorado State University-Fort Collins, (B.S. Early Childhood Education)
- Colorado State University-Pueblo (B.S., Early Childhood Education)
- Fort Lewis College (B.A. Early Childhood Education)

- Metropolitan State University of Denver (B.A. Early Childhood Education)
- University of Colorado, Denver (B.A. Education and Human Development - Early Childhood)
- University of Northern Colorado (B.A. Early Childhood Teacher Education (Birth-Grade 3))

Economics, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Economics prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a bachelor's degree in economics. Bachelor degree curriculums allow students to prepare for graduate school, for teaching careers, or for employment in areas that require economic analysis, such as actuarial science, investment banking, finance or statistics. Students would also be prepared to work in commercial banks, finance companies and insurance companies.

Program Description

The Associate of Arts Degree with Designation in Economics is designed for students who want to transfer to a four-year college or university to pursue a baccalaureate degree in economics. Completion of the AA degree completes the first two years of an economics bachelor's degree and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in economics.

Program Requirements

In addition to the requirements listed below, you must:

1. Earn a minimum of 60 semester hours of course work
2. Earn a minimum of 15 graded semester hours at PCC
3. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC business advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with Designation in Economics, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (37 Credits)

(Written) Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 **or** GT-SC2), one must be a laboratory (GT-SC1) *

Arts and Humanities (9 Credits)

(Select three courses from any category):

- GT-AH1, GT-AH2, GT-AH3, GT-AH4 *

Social and Behavioral Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Electives (20 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.S. Business Administration; Economics emphasis)
- Colorado State University-Fort Collins (B.A. Economics)
- Fort Lewis College – (B.A. Economics; Economics option)
- Metropolitan State University of Denver (B.A. Economics)
- University of Colorado, Boulder (B.A. Economics)
- University of Colorado, Colorado Springs (B.A. Economics)
- University of Colorado, Denver (B.A. Economics)
- University of Northern Colorado (B.A. Economics)
- Western State Colorado University (B.A. Economics)

Electromechanical Technology Certificate

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Industrial Electronics Technology prepares you for a career as an electronics technician, an electromechanical technician, a semiconductor manufacturing technician or an electromechanical field service technician.

Program Description

This program develops essential skills for maintaining the complex electromechanical systems found in modern automated manufacturing facilities. After completing a core of courses in math, physics, fundamental analog and digital electronics, robotics and programmable logic controllers, you will branch off into one of two optional tracks. The electromechanical option emphasizes a broader range of skills, including print reading, motors and controls, and mechanical components. In addition to the two AAS degree options, several certificate options are also available.

Program Requirements

Entrance Requirements:

You should have good basic reading, language and math competencies. High school algebra and physics are recommended but not required. Refresher classes are available.

Total Credits: 29

Certificate Requirements

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern

manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

or

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

Electromechanical Technology, AAS

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Industrial Electronics Technology prepares you for a career as an electronics technician, an electromechanical technician, a semiconductor manufacturing technician or an electromechanical field service technician.

Program Description

This program develops essential skills for maintaining the complex electromechanical systems found in modern automated manufacturing facilities. After completing a core of courses in math, physics, fundamental analog and digital electronics, robotics and programmable logic controllers, you will branch off into one of two optional tracks. The electromechanical option emphasizes a broader range of skills, including print reading, motors and controls, and mechanical components. In addition to the two AAS degree options, several certificate options are also available.

Program Requirements

Entrance Requirements:

You should have good basic reading, language and math competencies. High school algebra and physics are recommended but not required. Refresher classes are available.

Total Credits: 64

Degree Requirements

General Education Requirements (15 Credits)

CIS 110 - Intro to Computing Technology (Device)

Credit(s): 1

Vocational Lab Hour(s): 1

Introduces basic computing technology with an emphasis on document creation and storage. Use of technology for email, web surfing, and access to course materials is included.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

or

- Any 1 credit hour COM class offered in the fall semester

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

- Any Social/Behavior Science-Arts/Humanities Course

Common Core Requirements (46 Credits)

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 254 - Industrial Wiring

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on the required and recommended practice for industrial wiring. The National Electrical Code is applied to industrial power and control wiring. Covers specification and installation of wiring, conduit, enclosures and termination components in lecture and applied during lab.

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 259 - Advanced Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 258.

Serves as the second in a two-course sequence and covers advanced topics and applications for programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes advanced programming, diagnostics, Human Machine Interfaces (HMIs), introduction to automation networking and system integration. Incorporates lab and project activities that address designing, operating, monitoring, programming, analyzing, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 280 - Internship

Credit(s): 1-12

Internship Hour(s): 3-36

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 business location and with the direct guidance of the instructor.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing

processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

MAC 265 - Mechanical Component II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes coupling, vibration, shafting, keys and keyways, belts and chain drives, gears and gear drive, and seals.

MTE 105 - Safety Manufacturing Environment

Credit(s): 1

Lecture Hour(s): 1

Introduces Occupational Safety and Health Administration (OSHA) federal and state regulations, industrial practices, and accident investigation techniques; including topics such as hazard communication standards, lockout/tagout procedures, eye safety, lifting techniques, electrical safety, stored energy safety, Personal Protective Equipment (PPE), and safety program development and monitoring.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

or

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

Electives (3 Credits)

(Select one class)

CAD 101 - Computer Aided Drafting/2D I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on basic computer aided drafting skills using the AutoCAD software. Includes file management, Cartesian coordinate system & dynamic input, drawing templates, drawing aids, linetype and lineweights, layer usage, drawing & editing geometric objects, polylines & splines, array, text applications, creating tables, basic dimensioning and Help access.

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CNG 121 - Computer Technician I: A+

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Provides students with an in-depth look at personal computer hardware, introduces networking concepts, and covers operational procedures and troubleshooting, all of which are necessary 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. This course helps prepare you for the first CompTIA A+ Exam.

CNG 122 - Computer Technician II: A+

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CNG 121 or Department Chair Approval.

Provides students with an in-depth look at desktop and mobile Operating System support, maintenance and troubleshooting, and an overview of security concepts and interpersonal skills, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with current operating systems, including using common GUI and command line tools, registry editing, system backup and recovery, and advanced troubleshooting. This course helps prepare you for the second CompTIA A+ Exam.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Elementary Teacher Education, AA (with Transfer Articulation Agreement)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts degree with an emphasis in Elementary Education prepares you to transfer as a junior to a four-year institution in Colorado in order to become an elementary teacher.

Program Description

This program introduces you to the field of education. The course work comprises general education requirements common to all Colorado two- and four-year institutions. It also meets appropriate Colorado Model Content standards for elementary education. Upon transfer, if you have earned the AA degree with an emphasis in Elementary Education, you will be ready to apply for admission to a four-year institution's teacher education program.

Before beginning to take classes, you must meet with PCC's teacher education faculty advisor to plan a course of study and to examine the list of approved credits for each four-year institution in Colorado.

Students interested in majoring in education need to identify the four-year college/university to which they plan to transfer. Each individual institution requires different curriculum electives for graduation.

There are no current statewide articulation agreements in secondary or K-12 education, but students can still effectively pursue these options at PCC.

Emphasis in Elementary Education (Grades K-6)

If you want to teach grades K through 6, you may pursue an Associate of Arts degree with Elementary Education emphasis.

Emphasis in Secondary Education (Grades 7-12)

If you want to teach grades 7 through 12, you should identify the four-year college or university to which you intend to transfer and the appropriate curriculum. You may pursue an Associate of Arts degree with Secondary Education emphasis in one of the following licensure areas:

- English
- Math
- Science
- Social Science (History/Political Science)
- Spanish

Emphasis in K-12 Education

If you would like to teach in the K-12 content areas of art, music or physical education, you should pursue an Associate of Arts degree at PCC. Your advisor will help you select the electives that will be required for your bachelor's degree.

Total Credits: 60

General Education Core Requirements (32 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical

thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (6 Credits)

MAT 155 - Integrated Math I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 050.

Engages students in the concepts of school mathematics, including the recognition of numerical and geometric patterns and their application to a variety of mathematical situations; mathematical problem-solving, reasoning, critical thinking, and communication; algebraic thinking, representation, analysis, manipulation, generalizations and extensions. (This course is only offered in the fall semester.)

MAT 156 - Integrated Math II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 155.

Furtheres MAT 155 concepts and will include fundamentals of probability, statistics and Euclidean geometry. Mathematical problem-solving, reasoning, critical thinking and communication will continue to be an integral part of this sequence. (This course is only offered in the spring semester.)

Natural and Physical Sciences (8 Credits)

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (3 Credits)

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

or

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

Social and Behavioral Sciences (6 Credits)

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

History (3 Credits)

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

Education Requirements (9 Credits)

Please note: If these credits are not required for the major at a receiving 4-year institution, they will be applied to the bachelor's degree as elective credits towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

EDU 221 - Introduction to Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on the historical, social, political, philosophical, cultural and economic forces that shape the United States

public school system. Includes current issues of educational reform, technology as it relates to education and considerations related to becoming a teacher in the state of Colorado. Special interest will be paid to the topic of diversity in the K-12 school system.

PSY 238 - Child Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the growth and development of the individual from conception through childhood, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Other Required Courses (19 Credits)

Determined by transferring institution.

Students must meet with an academic advisor to determine which specific other courses are required pertaining to their emphasis area and transfer institution.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education: Adams State University (B.A. Interdisciplinary Studies)

- Colorado Mesa University (B.A. Liberal Arts)
- Colorado Mountain College (B.A. Interdisciplinary Studies)
- Colorado State University-Pueblo (B.S. Liberal Studies)
- Fort Lewis College (B.A. Elementary Education)
- Metropolitan State University of Denver (B.A. Human Development, B.A. Elementary Education)
- University of Colorado, Boulder (B.A. Elementary Education)
- University of Colorado, Colorado Springs (B.A. Inclusive Elementary Education, B.A. Biology, B.A. English Literature, B.A. Geography and Environmental Studies, B.A. History, or B.A. Spanish)
- University of Colorado, Denver (B.A., Elementary Education emphasis; B.A. Education and Human Development – Elementary Education)
- University of Northern Colorado (B.A. Elementary Education)
- Western State Colorado University (B.A. Elementary Education, CLD emphasis)

Emergency Medical Services, AAS

Career Opportunities

See list of Department Chairs on the Personnel page.

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-I99, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-I99. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 69

Semester One

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular,

nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

Semester Two

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

or

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Semester Three

EMS 225 - Fundamentals of Paramedic Practice

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 226.

Introduces the paramedic student to the advanced practice of prehospital care. This course covers professional behavior, medical ethics, legal issues, patient assessment, therapeutic communication, clinical decision making, and basic and advanced airway management. This course discusses EMS 's role in the healthcare continuum, professional communication, patient care documentation, IV fluid therapy and resuscitation, and the application of evidence based medicine. A brief overview of human anatomy, physiology and pathophysiology is included.

EMS 226 - Fundamentals of Paramedic Practice - Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 225, or have successfully completed EMS 225.

Complete all pre-course screening requirements, including drug test and criminal background check. Instructor approval. Serves as the lab experience to coincide with EMS 225 topics.

EMS 229 - Paramedic Pharmacology

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 230.

Introduces the paramedic student to advanced emergency pharmacology, pharmacokinetics and pharmacodynamics. This course will include laws affecting the use and distribution of medications, medication dosing, clinical calculations, routes of administration and discussion of common medication classifications to include indications, contraindications and side effects.

EMS 230 - Paramedic Pharmacology Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 229, or have successfully completed EMS 229.

Teaches the skills necessary for the paramedic to safely and effectively administer emergency medications. Serves as the companion course to Paramedic Pharmacology.

EMS 233 - Paramedic Medical Emergencies

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 234.

Expands on the paramedic student's knowledge of medical emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan. This course will cover principles of epidemiology and pathophysiology related to common medical emergencies including: neurological, abdominal and gastrointestinal disorders, immunological, infectious diseases, endocrine disorders, psychiatric disorders, toxicological, respiratory, hematological, genitourinary, gynecological, nontraumatic musculoskeletal disorders and diseases of the eyes, ears, nose and throat.

EMS 234 - Paramedic Medical Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 233.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of medical emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Medical Emergencies.

Semester Four

EMS 227 - Paramedic Special Considerations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to concepts in assessing and meeting the emergency care needs of the neonate, pediatric, geriatric and special needs patient. This course focuses on epidemiology, pathophysiology, assessment and treatment of these patient groups. Common medical and traumatic presentations are addressed. Relevant psychosocial and ethno cultural concepts and legal and ethical implications are integrated throughout.

EMS 228 - Paramedic Special Considerations Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 227.

Teaches the skills necessary for the paramedic to effectively assess and treat neonatal, pediatric, geriatric and special needs patients utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Special Considerations.

EMS 231 - Paramedic Cardiology

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to cardiovascular emergencies and the care of patients presenting with cardiovascular emergencies. Topics will include assessment of the cardiovascular system, ECG acquisition and interpretation both single lead and 12 lead, pathophysiology of cardiovascular disease and treatments indicated for a given disease.

EMS 232 - Paramedic Cardiology Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 231.

Teaches the skills necessary for the paramedic to effectively assess and treat patients presenting with cardiovascular emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Cardiology.

EMS 236 - Paramedic Trauma Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 235.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of traumatic emergencies utilizing skills and simulation scenarios. Serves as the companion lab course for Paramedic Trauma Emergencies.

EMS 237 - Paramedic Internship Preparatory

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): EMS 225, EMS 227, EMS 229, EMS 231, EMS 233, EMS 235

Reviews concepts and techniques used in the prehospital setting.

Semester Five

EMS 280 - Paramedic Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 237.

Provides the first course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a member of an ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Semester Six

EMS 281 - Paramedic Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 280.

Provides the second course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a leader of the ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

Emergency Medical Technician Mini-Certificate

CIP 51.0904

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-I99, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-I99. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 11-12

Emergency Medical Technician

Total Credits: 12

Certificate Requirements

EMS 121 - EMT Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management and patient assessment.

EMS 122 - EMT Medical Emergencies

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121. EMS 170.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history and pathophysiology when assessing and treating the medical patient.

EMS 123 - EMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.

EMS 124 - EMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials and terrorism.

EMS 170 - EMT Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

Advanced Emergency Medical Technician

Total Credits: 11

Certificate Requirements

EMS 127 - AEMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to the fundamental knowledge of growth, development and aging considerations in the emergency patient. The student will learn to use assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. These include the obstetric patient, neonatal patient, pediatric patient, geriatric patient and patients with special challenges. Learners will apply this knowledge to patient assessment and the development of a treatment plan in a simulated setting. This course also provides an overview of the principles of safe ground ambulance operations, incident management, multiple casualty incidents, air medical responses, vehicle extrication, hazardous material awareness and terrorism and disaster response. Learners will apply critical thinking skills to ensuring the safety of a scene and a plan for safe patient care and transportation.

EMS 129 - AEMT Pharmacology

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with a basis for making clinical decisions in the pharmacologic management of patients commonly encountered in the pre-hospital setting. Topics include the legal and ethical aspects of pharmacotherapy, roles, responsibilities and techniques associated with medication preparation and administration, the classification and naming of medications, pharmacokinetics, pharmacodynamics, and medication calculations. In addition the mechanism of action, dose, route(s) of administration, therapeutic effects, adverse effects, and therapeutic indications for medications within the Advanced Emergency Medical Technician scope of practice are discussed in detail.

EMS 131 - AEMT Fundamentals

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with instruction in EMS systems, communications and documentation, pathophysiology, airway management, and the role of EMS in public health.

EMS 133 - AEMT Medical Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the medical patient. This course provides instruction in the integration of physical exam findings, history findings and pathophysiology when assessing and treating the medical patient. Topics addressed include neurology, immunology, infectious diseases, endocrine disorders, cardiovascular disorders, toxicology, respiratory emergencies, hematology and renal disorders.

EMS 135 - AEMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the trauma patient. The student will learn how to utilize assessment findings to provide basic and selected advanced emergency care and transportation for the trauma patient.

EMS 171 - AEMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Acceptance into the AEMT Program.

Builds on the Advanced Emergency Medical Technician (AEMT) student's fundamental knowledge of patient care in the clinical and field setting. The student will perform patient assessments through physical examination, and patient interviews of health history and current illness. The student will then use those assessment findings to develop and carry out a patient treatment plan. This will include pediatric, geriatric and adult patients with a variety of presentations. The student will also survey each field scene for safety considerations and scene management.

EMT Enhanced Certificate

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Requirements

Entrance Requirements:

To enroll in all EMS programs, you must be at least 18 years of age, have all current immunizations, pass a background check and a drug screen and be able to meet the requirements of the Functional EMS Job Description.

Total Credits: 18

Prerequisite Courses for Program Admission Credits: 18

Student must have a current Health Care Professional CPR card, successful completions of CCR 092, qualifying assessment scores

Certificate Requirements

First Semester (12 credits)

EMS 121 - EMT Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management and patient assessment.

EMS 122 - EMT Medical Emergencies

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121. EMS 170.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide

emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history and pathophysiology when assessing and treating the medical patient.

EMS 123 - EMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.

EMS 124 - EMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials and terrorism.

EMS 170 - EMT Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

Second Semester (6 credits)

HPR 190 - Basic EKG Interpretation

Credit(s): 2

Lecture Hour(s): 2

Provides instruction for interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Twelve-lead EKG may be discussed.

EMS 132 - EMS Intravenous / Intraosseous Therapy

Credit(s): 2

Lecture Hour(s): .25

Vocational Lab Hour(s): 1.9

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current Colorado Certification as EMT or Department Chair Approval

Focuses on cognitive and skill practice for the Colorado scope of practice for the IV / IO endorsement as outlined in the Intravenous / Intraosseous Therapy and Medication Administration course curriculum.

EMS 180 - EMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Provides the Emergency Medical Technician (EMT) with a supervised clinical learning experience that goes beyond the initial EMT requirements for the State of Colorado Department of Health. Enables the student to work with an assigned preceptor for 90 hours of clinical experience to develop an understanding of the role and responsibilities of the EMT-Basic.

EMT Intermediate Option Certificate

CIP 51.0904

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-I99, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-I99. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 18

Certificate Requirements

Engine and Electrical Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 16

Certificate Requirements

ASE 120 - Basic Auto Electricity

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Introduces vehicle electricity, basic electrical theory, circuit designs, and wiring methods. This course focuses on multimeter usage and wiring diagrams. This course meets MLR/AST/MAST requirements.

ASE 123 - Starting and Charging System

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of a vehicle battery, testing, service, and repair of starting and charging systems including voltage testing, draw testing. This course meets MLR/AST/MAST program requirements.

ASE 130 - General Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers how to perform basic engine diagnosis to determine condition of engine including engine support systems. This course meets MLR/AST/MAST requirements.

ASE 132 - Ignition System Diagnosis and Repair

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems.

ASE 161 - Engine Repair & Rebuild

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the disassembly, diagnosis and reassembly of the automotive engine. Topics include the diagnostic and repair procedures for the engine block and head assemblies.

ASE 162 - Automotive Engine Repair

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers engine sealing requirements and repair procedures including engine fasteners, bolt torque, repair of fasteners, cooling system, and basic engine maintenance. This course meets AST/MAST requirements.

ASE 260 - Advanced Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors related to customer vehicles.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

English, Literature Emphasis, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in English prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) degree in English. Students who opt for the Bachelor of Arts in English can choose to work in a wide variety of occupational fields including teaching, journalism, law, publishing, medicine and the fine arts. Once a BA is completed, students may pursue a higher or graduate degree in English, if interested.

Program Description

This program introduces the student to the discipline of English and includes the course work to meet general education requirements that are common to all Colorado four-year institutions. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in English will be ready to complete the last half of a BA in English at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and**

ENG 201 - Composition III: Writing for Public Discourse GT-CO3

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ENG 122 with a grade of C or better.

Provides students with skills necessary to enter into higher-level undergraduate academic discourse or professional workplace writing. ENG 201 extends students' rhetorical knowledge and develops critical reading, thinking and writing strategies in multiple specialized areas of discourse beyond what they encounter in ENG 122. In ENG 201, students deepen their rhetorical and writing skills by learning to analyze, synthesize and summarize complex texts and incorporate this information into specific writing conventions for a defined discipline. As a more advanced composition course, ENG 201 provides interested students with the opportunity to continue their exploration of expository writing with the added benefit of learning to write for distinct audiences (format, language, level of specificity, length and documentation style). Students will also learn effective editing and revising techniques, discipline-specific writing strategies, and how to extend their mastery of rhetorical strategies. While ENG 201 may be taught with the focus in a variety of disciplines (science writing, gender studies, literary criticism, writing in the humanities, business writing, political geography, philosophy, and so on), every discipline will allow students the opportunity to learn how to communicate with specialized audiences and adapt content to the needs of varying rhetorical situations.

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT- MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1) *. At least one of these courses must include a laboratory component (GT-SC1) *.

Arts and Humanities (9 Credits)

Note: Courses from the Literature and Humanities category (GT-AH2) may **not** be used to meet this requirement.

- Select three GT Pathways Arts and Humanities courses

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Courses (18 Credits)

Verbal Communication (3 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations.

Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Select five GT Pathways Arts and Humanities Literature (LIT) courses within the GT-AH2 category (15 Credits)

Note: Students are required to take a total of five (5) LIT courses (15 credits), four (4) of which must be at the 200-level. Please consult with your receiving institution regarding best choices for literature courses.

Electives (8 Credits)

Determined by transferring institution.

Recommended elective:

ENG 221 - Creative Writing I

Credit(s): 3

Lecture Hour(s): 3

Teaches techniques for creative writing. Explores imaginative uses of language through creative genres (fiction, poetry, literary nonfiction) with emphasis on the student's own unique style, subject matter and needs.

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.A. English, Liberal Arts emphasis)
- Colorado Mesa University (B.A. English, Literature concentration)
- Colorado State University-Fort Collins (B.A. English)
- Colorado State University-Pueblo (B.A. English)
- Ft. Lewis College (B.A. English, General Option)
- Metropolitan State University of Denver (B.A. English)
- University of Colorado, Boulder (B.A. English)
- University of Colorado, Colorado Springs (B.A. English)
- University of Colorado, Denver (B.A. English, Literature emphasis)
- University of Northern Colorado (B.A. English, Liberal Arts emphasis)
- Western State Colorado University (B.A. English)

Esthetician Certificate

CIP 12.0409

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Esthetician certificate – This certificate program provides training in facial care.

Total Credits: 20

Certificate Requirements

Core Requirements (20 Credits)

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

EST 101 - Introduction to Sterilization, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of sterilization, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with sterilization and sanitation.

EST 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with disinfection, sanitation and safety.

EST 161 - Intermediate Disinfection, Sanitation & Safety

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Presents theory and the daily utilization and practice of the proper methods of disinfection, sanitation, and safety. Procedures as related to all phases of the industry. Training is provided in a supervised (clinical) setting.

EST 110 - Introduction to Facials and Skin Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic understanding of massage manipulations when providing facials, the study of skin in both theory and

practical applications, and benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

EST 111 - Intermediate Facials & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 110.

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 210 - Advanced Massage & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 111.

Provides the student with advanced techniques in massage, skin care and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 - Facial Make-up

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): EST 110.

Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 - Hair Removal

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): EST 110.

Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

Exercise Science Health Promotion, AGS (with Transfer Articulation Agreement)

CIP 24.0102

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of General Studies (AGS) in Exercise Science Health Promotion is designed for students who want to transfer to CSU-Pueblo to pursue a bachelor's degree in the areas of Exercise Science, health promotion, recreation and athletic training. The Pueblo Community College curriculum provides a transferable foundation for all Exercise Science Health Promotion majors. Exercise Science Health Promotion is the science and art of helping people evaluate their lifestyle to move toward a state of optimal health. We define optimal health as a balance of physical, emotional, career, social, spiritual and intellectual health. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, change behavior, and create environments that support health practices. Giving Pueblo Community College students the opportunity to earn a two-year degree in health promotion will prepare them for a transfer degree to CSU-Pueblo and careers in a wide variety of allied health fields.

Program Description

The Exercise Science Health Promotion program at Pueblo Community College is designed for students interested in studying for the Exercise Science Health Promotion professions through the community college pathway. This pathway prepares students for the completion of a two-year Associate of General Studies (AGS) degree which meets the requirements of bachelor's degree in Exercise Science Health Promotion at CSU-Pueblo. Completion of the associate degree completes the first two years of the Exercise Science Health Promotion bachelor's degree and guarantees transfer at the junior level.

Program Requirements

Entrance requirements: Refer to the general requirements for the Associate of Science degree. Refer to the course descriptions for specific course prerequisites.

Total Credits: 60

* May require additional electives to meet total degree credits

* *Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (41 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Oral Communication (3 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (13 Credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

Social and Behavioral Sciences (6 Credits)

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Arts and Humanities (6 Credits)

- Select two GTPathway GT-AH1, GT-AH2, or GT-AH3 courses *

Core Curriculum (15 Credits)

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

HPR 100 - Introduction to Health

Credit(s): 3

Lecture Hour(s): 3

Provides an exploratory course for students interested in a health career. Basic health skills such as vital signs and CPR will be included.

or

RCA 105 - Introduction to Respiratory Care

Credit(s): 1

Lecture Hour(s): 1

Introduces the principles and practices of Respiratory Therapy, to include the study of: the profession's history, current and future roles of the respiratory therapist, working cohesively with other professional organizations, quality care and evidence-based practice, patient safety, effective communication with patients, patient health records, principles of infection control, and implications of legal and ethical practices.

or

PTA 115 - Principles and Practices of Physical Therapy

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission or department chair approval.

Explores the history of the profession including definition, development and areas of practice. The role of the APTA, the physical therapist assistant and the relationship between the physical therapist, PTA and other health care professionals are investigated. Includes current issues and trends including professionalism, ethics, quality assurance, communications and reimbursement issues such as Medicare, Medicaid, workers' compensation and commercial insurance.

or

RTE 101 - Introduction to Radiography

Credit(s): 2

Lecture Hour(s): 2

Introduces radiology including equipment, exposure, positioning and the knowledge necessary for the radiography student to provide safe patient care including communication skills, body mechanics, patient transfer, and radiography as a profession.

or

OTA 100 - Introduction to Occupational Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission

Explores career options in occupational therapy through discussion, observation and participation. Identifies the need for areas of occupation and the differences between health, illness and wellness. Describes the history and philosophy of occupational therapy and the roles, responsibilities and relationships between other healthcare professionals. Discusses ethical and legal implications of health care and explores basic sociological issues.

HWE 103 - Community First Aid and CPR

Credit(s): 1

Lecture Hour(s): 1

Prepares the student for certification in CPR and Basic First Aid. Skills will include basic life support, airway obstruction, control of bleeding, shock and patient care for the unconscious.

HWE 111 - Health and Fitness

Credit(s): 3

Lecture Hour(s): 3

Studies health and fitness in the US today. The course will look at personal health issues, managing stress, nutrition and health lifestyles.

PSY 229 - Introduction to Addictive Behavior

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): ENG 121.

Focuses on addictive behavior and its effect on individuals, families and society.

Electives (4 Credits)

- Choose any PED courses from the catalog

Fire Investigator I Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 9

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 205 - Fire Investigation I

Credit(s): 3

Lecture Hour(s): 3

Provides the student with the 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 firesetter, and types of fire causes.

FST 251 - Legal Aspects of Fire Service

Credit(s): 3

Lecture Hour(s): 3

Introduces the federal, state and local laws that regulate emergency services, national standards influencing emergency service, standard of care, tort, liability, and a review of relevant court cases.

FST 252 - Fire Investigation II

Credit(s): 3

Lecture Hour(s): 3

Provides the student with advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.

Fire Officer I Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course.

Total Credits: 12

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 201 - Instructional Methodology

Credit(s): 3

Lecture Hour(s): 3

Identifies the 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. Fire Instructor I State Certification is possible.

FST 206 - Fire Co Superv and Leadership

Credit(s): 3

Lecture Hour(s): 3

Addresses the requisite knowledge and skills required to perform at level 1 as identified in National Fire Protection Association (NFPA) 1021, Fire Officer Professional Qualifications. Areas of focus include: fire department organization, company officer traits, roles and responsibilities, communications practices, administrative functions, safety, health and wellness, training, fire prevention, human resources management, and incident management and operations. The course prepares the learner for the Colorado Fire Officer I State Exams and JPR evaluations.

FST 253 - NIMS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): FST 202.

Focuses on the National Incident Management System, including fire ground management and resource management. Multiagency coordination systems are discussed; organization preparedness for large scale emergencies, communication and information are addressed. The course concludes with a review of the National Response Plan.

FST 255 - Fire Service Management

Credit(s): 3

Lecture Hour(s): 3

Serves as the basic management course for present and potential members of the fire and emergency service professions. The course introduces the student to current fire service management practices, challenges, and real-world applications from the fire officer's point of view. The course addresses decision-making, problem solving, necessary communication skills, conflict resolution, effective leadership skills, as well as the role of the fire service manager in supervising personnel and programs.

Fire Prevention & Public Education Mini-Certificate

CIP 43.0203

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course.

Total Credits: 14

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 106 - Fire Prevention

Credit(s): 3

Lecture Hour(s): 3

Provides 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.

FST 150 - Introduction to Fire Prevention Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on conducting prevention and education needs assessment, targeting audiences; development and delivery of prevention and education programs. Includes methods of conducting fire prevention and safety inspections.

FST 204 - Principles of Code Enforcement

Credit(s): 3

Lecture Hour(s): 3

To provide the students with the fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program.

FST 208 - Fire Plans Review and Acceptance Testing

Credit(s): 2

Lecture Hour(s): 2

Instructs the student on how to review building plans submitted to a fire department, acceptance testing procedures, implementation of a fire inspection program, and how to deal effectively with the public for fire prevention and education activities.

FST 209 - Fire Protection Systems

Credit(s): 3

Lecture Hour(s): 3

Provides information relating to the 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.

Fire Science Technology, AAS

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Degree Program Description

The Fire Science Technology is an Associate of Applied Science (AAS) degree designed to meet the needs of fire protection and safety personnel. The program will prepare you for a career in fire science or a related field. Courses are offered through traditional classroom instruction, independent study and hands-on training in conjunction with local fire departments.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology AAS degree requires a minimum of 69 credits for completion. Fifteen credits are in general education, 15 credits are in technical electives and 40 credits are in required technical courses.

A grade of "C" or higher is required in each course.

Total Credits: 60

Degree Requirements

ALSO SEE WILDLAND FIREFIGHTER

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

or

POS 125 - American State and Local Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the structure and function of state, county and municipal governments, including their relations with each other and with national government. Includes a study of Colorado government and politics. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

Technical Courses (33 Credits)

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 101 - Firefighter II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): FST 100.

Addresses the requirements necessary to perform at the second level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level II, standard.

FST 102 - Principles/Emergency Services

Credit(s): 3

Lecture Hour(s): 3

Provides an overview 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; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 105 - Building Construction for Fire Protection

Credit(s): 3

Lecture Hour(s): 3

Provides the 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.

FST 106 - Fire Prevention

Credit(s): 3

Lecture Hour(s): 3

Provides 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.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 109 - Occupational Safety & Health

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout emergency services.

FST 202 - Strategy and Tactics

Credit(s): 3

Lecture Hour(s): 3

Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

FST 209 - Fire Protection Systems

Credit(s): 3

Lecture Hour(s): 3

Provides information relating to the 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.

Technical Elective Courses (12 Credits)

Select up to 12 hours from any of the following: FST, FSW or EMS courses

Firefighter Academy Structural Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 16

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 160 - Candidate Physical Abilities Test Prep

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prepares students for the CPAT test and other related fitness testing for entry level firefighters. The course will focus on aerobics and strength training to assist students in passing a CPAT test or any related fitness entry level test. Students will also be trained on how to use various firefighting tools as they pertain to how the tools will be used in the CPAT or other related entry-level fitness test.

FST 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Firefighter I Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course

Total Credits: 12

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

First Year Nursing - PN Certificate Option

CIP 51.3801

See list of Department Chairs on the Personnel page.

Total Credits: 54

Certificate Requirements

General Education Requirements (18 Credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

Core Curriculum Requirements – 1st year (33 Credits)

Semester 1 – Fall

NUR 109 - Fundamentals of Nursing

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 112, HPR 108, MAT 103. Psych Tech: NUR 112.

Introduces the fundamental concepts necessary for safe, patient-centered nursing care to a diverse patient population while integrating legal and ethical responsibilities of the nurse. Introduces caring, critical thinking, the nursing process, quality improvement and communication used when interacting with patients and members of the interdisciplinary team, and relates evidence-based nursing practice. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings providing care to stable patients with common health alterations.

NUR 112 - Basic Concepts of Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 109, HPR 108, MAT 103; Psych Tech: NUR 109.

Overview of the basic principles of pharmacology including major drug classifications and prototypes of commonly used medications. Principles of medication administration include aspects of best practice for safe, quality, patient-centered care. Central points include safety, quality improvement factors in the administration of medications, patient teaching and variations encountered when administering medications to diverse patient populations across the lifespan.

- NUR 175 - ST - Introduction to Nursing **Credit(s): 3**

Semester 2 – Spring

NUR 106 - Med-Surg Nursing Concepts

Credit(s): 7

Lecture Hour(s): 3.40

Vocational Lab Hour(s): 0.90

Voc/Tech Clinic Hour(s): 9.90

Prerequisite(s): Admission to Nursing Program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 150 or permission of the program director.

NUR106 is the first medical/surgical nursing course. Building on NUR 109, this course provides for the acquisition of basic medical/surgical nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered care to a developmentally and culturally diverse adult patient population experiencing various medical/surgical interventions. Incorporates evidence-

based practice, quality improvement, professional standards, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings.

NUR 150 - Maternal-Child Nursing

Credit(s): 6

Lecture Hour(s): 3.30

Vocational Lab Hour(s): 2.10

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 106 or permission of the program director.

Nursing 150 provides for the acquisition of maternal/child nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, family-centered nursing care to childbearing families and children that is developmentally and culturally appropriate. Incorporates evidence-based practice, standards of practice, quality improvement, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of maternal/child and pediatric clinical settings.

Semester Summer (Optional for Certificate)

NUR 169 - Transition into Practical Nursing

Credit(s): 4

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or program director permission.

Facilitates the transition into the role of the practical nurse with emphasis on distinguishing the defined practical nurse scope of practice related to clinical practice, communication, nursing process, ethical/legal issues and leadership skills. The student practices in the role of the practical nurse in the associated clinical experience.

Fitter or Combination Welder Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 20

Certificate Requirements

Core Requirements (20 Credits)

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 125 - Introduction to Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124.

Covers welding in all positions and on various joint configurations using the GMAW (mig) welding process on carbon steel, stainless steel and aluminum. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 224 - Advanced Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers Gas Tungsten Arc Welding (GTAW) operations utilizing a variety of base metals and advanced joint designs.

WEL 225 - Advanced Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers welding in all positions on carbon steel plate with the GMAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Forensic Computing Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 23

Certificate Requirements

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

CNG 258 - Digital Forensics

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): CNG 124.

Corequisite(s): CIS 220.

Exposes the student to the field of digital computer forensics and investigation. This class provides the student with methods to properly conduct a digital forensics investigation including a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analyses.

Fuels and Emissions Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 14

Certificate Requirements

ASE 134 - Automotive Fuel and Emissions Systems I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive fuel emission control systems, filter systems, and spark plugs. This course also includes maintenance to Diesel Exhaust Fluid (DEF) systems.

ASE 221 - Auto/Diesel Body Electrical

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

ASE 233 - Auto Fuel Injection and Emissions Systems II

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

ASE 236 - Advanced Drivability Diagnosis/Repair

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the inspection, testing and repair of typical computerized engine control systems on customer vehicles.

General Automotive Technology, AAS

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 78

Degree Requirements

General Education Courses (16 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

or

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

or

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

or

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections,

introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Core Requirements (62 Credits)

ASE 102 - Introduction to the Automotive Shop

Credit(s): 2

Lecture Hour(s): 2

Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.

ASE 110 - Brakes I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Introduces the basic theory of automotive braking systems including operation, diagnosis, basic repair of disc and drum friction assemblies, and basic hydraulic braking systems. This course meets MLR/AST/MAST program accreditation requirements.

ASE 111 - Automotive Brake Service II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): ASE 110.

Covers diagnostics, test procedures, and repair to automotive foundation braking system. This course also introduces the components, types of Antilock Braking Systems (ABS), and traction control systems of current vehicles. This course meets MLR/AST/MAST program accreditation requirements.

ASE 120 - Basic Auto Electricity

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Introduces vehicle electricity, basic electrical theory, circuit designs, and wiring methods. This course focuses on multimeter usage and wiring diagrams. This course meets MLR/AST/MAST requirements.

ASE 123 - Starting and Charging System

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of a vehicle battery, testing, service, and repair of starting and charging systems including voltage testing, draw testing. This course meets MLR/AST/MAST program requirements.

ASE 130 - General Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers how to perform basic engine diagnosis to determine condition of engine including engine support systems. This course meets MLR/AST/MAST requirements.

ASE 132 - Ignition System Diagnosis and Repair

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems.

ASE 134 - Automotive Fuel and Emissions Systems I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive fuel emission control systems, filter systems, and spark plugs. This course also includes maintenance to Diesel Exhaust Fluid (DEF) systems.

ASE 140 - Suspension and Steering I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on diagnosis and service of suspension and steering systems and components. This course meets MLR/AST/MAST requirements.

ASE 141 - Suspension and Steering II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers design, diagnosis, inspection, service of suspension, and steering systems used on light trucks and automobiles including power steering and Supplemental Restraint System (SRS) service. This course meets AST/MAST requirements.

ASE 151 - Automotive Manual Transmission/Transaxles & Clutches

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive manual transmissions, transaxles, clutches, and related components. This course meets AST/MAST requirements.

ASE 152 - Manual Transmission, Transaxles and Clutches II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel and all-wheel drive units.

ASE 161 - Engine Repair & Rebuild

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the disassembly, diagnosis and reassembly of the automotive engine. Topics include the diagnostic and repair procedures for the engine block and head assemblies.

ASE 162 - Automotive Engine Repair

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers engine sealing requirements and repair procedures including engine fasteners, bolt torque, repair of fasteners, cooling system, and basic engine maintenance. This course meets AST/MAST requirements.

ASE 210 - Automotive Power and ABS Brake Systems

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of the modern automotive braking systems including the operation, diagnosis, service, and repair of the anti-lock braking systems and power assist units. This course also covers the machining operations of today's automobile brake systems. This course meets AST/MAST requirements.

ASE 221 - Auto/Diesel Body Electrical

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

ASE 233 - Auto Fuel Injection and Emissions Systems II

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

ASE 236 - Advanced Drivability Diagnosis/Repair

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the inspection, testing and repair of typical computerized engine control systems on customer vehicles.

ASE 240 - Suspension and Steering III

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

ASE 250 - Automatic Transmission/Transaxle Service

Credit(s): 1

Lecture Hour(s): 1

Focuses on practical methods of maintaining, servicing, and performing minor adjustments on an automatic transmission and transaxle. This course meets MLR/AST/MAST requirements.

ASE 251 - Automotive Transmission and Transaxle Repair

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation including removal, installation, and replacement of transmission/transaxle and components. This course meets AST/MAST requirements.

ASE 252 - Advanced Automatic Transmissions/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the diagnosis, repair, and rebuild of automatic transmissions and transaxles including the hydraulic, electronic, and mechanical components. This course meets MAST requirements.

ASE 253 - Advanced Manual Transmission/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles, clutches and their related components on customer vehicles.

ASE 260 - Advanced Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors related to customer vehicles.

ASE 264 - Introduction Automotive Heating and Air Conditioning

Credit(s): 1

Vocational Lab Hour(s): 1.50

Covers basic operation of heating and air conditioning components. This course meets MLR/AST/MAST requirements.

ASE 265 - Heating and Air Conditioning Systems

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

ASE 281 - Internship: Basic Heavy Duty and Power Train

Credit(s): 1

Internship Hour(s): 3

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

General Machining Technology Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 35

Certificate Requirements

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards,

fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

MAC 243 - Mastercam

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces the concepts of creating basic 2D and 3D Mastercam wireframes, building and manipulating surfaces and solids. The practices and techniques of fixture incorporation, tool pathing, and machine code generation will be discussed. Basic user interfaces and custom interface setup will be covered, as well as common file storage.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 130 - Conventional Lathe Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Includes calculation of speeds and feeds on various materials, identification and application of various work holding techniques, tool forming, advanced machining practices and applications, and spindle tooling. Students will learn how to calculate and turn tapers using the compound slide or taper attachment, offset work on a four jaw chuck, turning between centers, boring, grooving, finishing, single point threading, knurling, tool grinding, drilling operations, and reaming.

MAC 131 - Milling Machines & Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces vertical milling machines. The operations and applications will consist of using the machine controls, speeds and feeds, spindles, arbors and adapters cutting tools, tool holders, conventional and climb milling applications simple indexing, fixture alignments, work holding methods. Students will become familiar with set-up applications considering offset boring operations, face milling, plain milling, and precision drilling applications. Students will be required to produce parts to a tolerance of +/- .004in. and perform competencies set by manufacturing standards.

MAC 250 - Advanced Inspection Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring

instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of quality control, TQM and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

MAC 203 - Introduction to CNC Operations

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Introduces basic writing and editing of CNC programs. G&M codes, math, speeds feeds, production processes including basic process controls, simple fixturing, and documentation associated with manufacturing will be covered.

MAC 208 - CNC Operations II

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Further develops skills in writing and editing advanced CNC programs. G&M codes, math, speeds feeds, production processes including multi-part, process controls, fixturing, and documentation associated with manufacturing will be covered.

Geology, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science (AS) Degree with Designation in Geology prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science (BS) degree in Geology or Earth Sciences. Students who opt for the Bachelor of Science in Geology can choose to work in various occupational fields of science or engineering. Once a BS is completed, many students will pursue a higher or graduate degree in Geology.

Program Description

This program introduces the student to the discipline of Geology includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Geology. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Geology will be ready to complete the last half of a BS in Geology at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Course (GT-CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron

configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Science and Mathematics Courses (23 Credits)

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Elective (1 Credit)

Determined by transferring institution

Transfer Degrees

Note: In addition to meeting the requirements listed here, contact the department at the school to which you want to transfer for program-specific information.

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.A./B.S. Earth Sciences, Geology emphasis)
- Colorado Mesa University (B.S. Geosciences, Geology concentration)
- Colorado State University-Ft. Collins (B.S. Geology, Geology concentration)
- Fort Lewis College (B.S. Geology, Geology option)
- University of Colorado, Boulder (B.A. Geology)
- University of Northern Colorado (B.S. Earth Sciences, Geology emphasis)
- Western State Colorado University (B.A. Geology, Geology emphasis)

Graphic Design, AAS

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 63

Degree Requirements

Semester 1 - Fall (15 Credits)

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 105 - Typography & Layout

Credit(s): 3

Vocational Lab Hour(s): 4.50

Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving and research. Provides experience producing thumbnails, roughs and digital layouts emphasizing refined creative typography.

Semester 2 - Spring (15 Credits)

ART 121 - Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Investigates the various approaches and media that students need to develop drawing skills and visual perception.

or

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image

capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 114 - Adobe Indesign

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces students 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.

Mathematics (3 Credits)

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

or

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Or Choose Any GT-MA1 Mathematics

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors.

Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic

geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

Semester 3 - Fall (12 Credits)

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

MGD 112 - Adobe Illustrator I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Illustrator as an illustration, design and vector drawing tool. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design. Course competencies and outline follow those set by the Adobe Certified Associate exam in Visual Communication using Adobe Illustrator.

or

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 133 - Graphic Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 105 and MGD 111 or MGD 114, or Department Chair Approval.

Focuses upon the study of design layout and conceptual elements concerning graphic design projects such as posters, advertisements, logos and brochures.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

Semester 4 - Spring (15 Credits)

MGD 233 - Graphic Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 133.

Continues instruction in idea development for advanced graphic design.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

MGD 256 - Graphic Design Production

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 133

Provides an opportunity to combine several draw and paint applications into one design and layout class. Students will explore advanced techniques in creating and designing computer art.

MGD 268 - Business for Creatives

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121 or ENG 131

Presents a guide to freelance work and a study of business practices and procedures and models unique to creative occupations (graphic design, web design, animation, fine arts). Discussion includes determining charges, business forms, business planning, tax structure, licenses and registration, self-promotion (resume, website, portfolio, business identity package). Course may include visits by professionals in the field and discussion of career opportunities in a quickly changing career field.

Human Nutrition (3 Credits)

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

Or Choose any GT-SC1 Physical & Life Sciences with lab

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system.

Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

ENV 101 - Environmental Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources, pollution and environmental protection. Using a holistic approach, students will study how the foundations of natural sciences interconnect with the environment. This course includes laboratory experience.

GEO 111 - Physical Geography: Landforms with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces students to the principles of Earth's physical processes, emphasizing landforms, soils and hydrology. Examines the formation and distribution of landforms, such as mountains, valleys and deserts, and their shaping by fluvial and other processes. The course incorporates an integrated process of lectures, discussion and laboratory assignments.

GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the principles of meteorology, climatology, world vegetation patterns and world regional climate classification. The course includes investigating the geographic factors which influence climate, such as topography, location, elevation, winds and latitude.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

GEY 135 - Environmental Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Introduces the subject of geology as it relates to human activities. Geologic hazards such as floods, landslides, earthquakes, and volcanoes are investigated. Mineral, energy, soil, and water resources are discussed in terms of their geologic formation and identification, usage by society, and associated environmental impacts. Land use issues, waste, and pollution are also examined.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 107 - Energy Science & Technology with Lab: GT-SC1**Credit(s): 4****Lecture Hour(s): 3****Academic Lab Hour(s): 2****Prerequisite(s):** MAT 055 with a grade of S/C or better.

Explores the science of energy and energy technologies, with a focus on renewable energy resources and clean technologies. It provides a background in the physics of energy, energy transfer and the current state of technology. Students will evaluate the future utilization of renewable technologies. Activities may include investigating conservation of energy, mechanical, electrical, heat and fluid power systems; energy transfer and loss; understanding energy audits; testing solar collectors and wind generators; and investigating hydrogen fuel cells. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1**Credit(s): 5****Lecture Hour(s): 4****Academic Lab Hour(s): 2****Prerequisite(s):** MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1**Credit(s): 5****Lecture Hour(s): 4****Academic Lab Hour(s): 2****Prerequisite(s):** MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1**Credit(s): 5****Lecture Hour(s): 4****Academic Lab Hour(s): 2****Prerequisite(s):** MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Semester 5 - Summer (6 Credits)

MGD 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

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 business location and with the direct guidance of the instructor.

MGD 289 - Capstone

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

A demonstrated culmination of learning within a given program of study.

Hairstylist Barber Crossover

See list of Department Chairs on the Personnel page.

The Barbering Crossover Certificate is designed for Licensed Hairstylists to learn the remaining skills that Barbers know they can carry a dual license in the State of Colorado. The program includes techniques in men's hair cutting, men's facials, shaving, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on manikins and the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

Total Credits: 6

Students wanting to obtain a Barbering License by completing the Barbering Crossover Certificate will have to have already obtained their Hairstylist License.

Core Curriculum Summer Semester (6 credits)

BAR 107 - Introduction to Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 - Intermediate Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 207 - Advanced Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Board license exam.

BAR 166 - Introduction to Facial Massages & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes basic understanding of facial massage manipulations and the study of skin in both practical and theory applications. Covers the benefits derived from proper facial massage and a good skin care routine.

BAR 167 - Intermediate Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on practical application dealing with anatomy, skin disorders, skin types and facial shapes. Students help patrons select proper skin care treatments

BAR 266 - Advanced Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes anatomy, skin disorders, skin types and facial shapes. Students guide patrons on selection of proper skin care treatments. Covers student preparation for State Board licensing examination on theory and practical procedures.

Hairstylist Certificate

CIP 12.0407

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Hairstylist certificate – This certificate program provides training in hair care. Instruction is provided in hair cutting, hair styling, hair coloring and chemical textures services.

Total Credits: 40

Certificate Requirements

Core Requirements (40 Credits)

COS 103 - Shampoo/Rinses/Conditioners I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 - Introduction to Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 - Intermediate: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 - Introduction to Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair-cutting implements. Focuses on basic hair-cutting techniques using all cutting implements, disinfection and sanitation procedures as they relate to haircutting.

COS 121 - Intermediate I: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Focuses on theory related to facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 - Introduction to Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Combines theory with the practical application of roller placement, shaping, pin curls, finger waves, air forming iron curling, soft pressing and hard pressing.

COS 131 - Intermediate I: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 - Introduction to Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

COS 141 - Intermediate I: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

COS 161 - Intermediate I: Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

COS 203 - Shampoo/Rinses/Conditioners II

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 103.

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 - Intermediate II: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

COS 211 - Advanced Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 111.

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 - Intermediate II: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 - Advanced Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 121.

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 - Intermediate II: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 - Advanced Hair Styling

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 131.

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 - Intermediate II: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

COS 241 - Advanced Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 141.

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

COS 260 - Intermediate II: Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides continued study of theory and practice of proper methods of sterilization, disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

COS 261 - Advanced Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 161.

Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

COS 262 - Advanced II: Disinfection, Sanitation & Safety

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): COS 260.

This course is the extra hours/credits required for the hairstylist program, per State Board of Colorado Barber/Cosmetology Board. Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

Healthcare Information Systems AAS

CIP: 51.0705

See list of Department Chairs on the Personnel Page

Program Description

This program prepares students for professions in the Health Information Management field. The roles of clinicians and information technologists are explored, specifically addressing electronic health records (EHR), safer and cost effective health practices, and the transfer of personal health information nationwide (Health Information Exchange HIE). The HIT program has two degree offerings: Medical Coding and Healthcare Information Systems. The Introduction to Health Information Technology Certificate and the Medical Coding Certificate serve as stackable credentials for those who have formal training in other disciplines such as Office Management or Cyber Security.

Total Credits: 61

General Education (15 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical

thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

- Gen Ed Elective (PSY or COM) **Credit(s): 3**

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HIT Core Curriculum (46 credits)

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HIT 261 - Healthcare Software

Credit(s): 3

Lecture Hour(s): 3

This course covers basic computer system architecture, file structure and design for healthcare settings. Topics include system analysis, design, security and selection for a variety of hardware environments. This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application. Security and confidentiality issues, concerns and implications in relation to the electronic health record will be addressed.

HIT 222 - Quality Management

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the basic concepts of quality management in the healthcare environment. Requirements by regulatory agencies regarding quality documentation, utilization and risk management are discussed. Data collection, verification, analysis, descriptive statistics and presentation techniques will be studied. The course emphasizes the ongoing use of objective data and feedback to improve processes, systems and patient outcomes. Analysis of documentation for various purposes is also covered.

HIT 112 - Legal Aspects for Health Records

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the legal system and defines the role of the healthcare professionals. Specific federal and state laws are identified and discussed as they relate to release of medical information.

HIT 289 - HIT Capstone Course

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department approval required

Provides a demonstrated culmination of learning within a given program of study.

HIT 120 - Working with Health IT Systems

Credit(s): 4

Lecture Hour(s): 4

Provides hands-on experience with a computerized HIT system/electronic health record, utilizing contemporary online systems with simulated data. The course will include additional lecture, project work and practice in the use of HIT systems. Students will play the role of practitioners using these systems and experience threats to security and gain an appreciation of the need for standards and high levels of usability. Students will also learn how errors can occur and ways to minimize them.

HIT 122 - Workflow Fund of Healthcare

Credit(s): 3

Lecture Hour(s): 3

Introduces the fundamentals of healthcare workflow, process analysis and redesign in various healthcare settings. Health information technology culture changes (IT/clinicians) and project management, including HIT system selection, design, implementation and support will also be covered. Electronic health record/practice management systems will be evaluated for quality and process improvement, clinical decision support, health information exchange, public health, and population health management in ambulatory and alternative care settings.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

HIT 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HIT 264 - Data Visualization

Credit(s): 4

Lecture Hour(s): 4

Introduces data visualization tools and techniques software, as well as increasing proficiency in Excel. Students will be able to tell a story with data, communicating observations in a clear, compelling way that provides meaning and explanation. As part of this course, students are also required to complete a professional practicum experience to apply classroom knowledge in a clinical setting.

HIT 265 - Data Analytics Applications

Credit(s): 3

Lecture Hour(s): 3

Deepens understanding of current and emerging practices in the application of data analytics. Topics include clinical, financial, operations and qualitative analytics; trends in practices; customer expectations; regulations that affect analytics; and ethical issues in gathering, analyzing and reporting healthcare data. Explore the roles and applications of descriptive, retrospective and prescriptive analytics in various settings.

High Pressure Pipe Welder Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 16

Certificate Requirements

Core Requirements (16 Credits)

WEL 239 - 2G-Horizontal Pipe A.S.M.E.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G Horizontal position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 241 - 5G-Vertical Up A.S.M.E.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 239.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical up position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 242 - 6G-45 All Sizes Pipe

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 241.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° Uphill position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 243 - Testing All Sizes Pipe

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Testing with different sizes of pipe to the American Petroleum Institute Pipe Code and American Society of Mechanical Engineers codes in all positions 2G, 5G, 6G with 2 3/8-inch pipe and 2-inch pipe.

History, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in History prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in history. Students who opt for a bachelor's degree in history can choose to work in several occupational fields including education at multiple levels, historical and/or corporate research, public history and many other related areas of social sciences. Once a BA is completed, students may pursue a higher or graduate degree in history, if interested.

Program Description

The Associate of Arts Degree with Designation in History introduces students to the field of history and includes the course work to meet general education requirements that are common to all Colorado four-year institutions. The degree is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in history. Completion of the AA degree completes the first two years of a bachelor's degree in history, and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in history.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with a designation in history, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (3 Credits)

- Select from a GT Pathways Mathematics course (GT-MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

One of these courses must include a laboratory component

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1 **or** GT-SC2) *

Arts and Humanities (9 Credits)

- Select three from a GT Pathway course from any category (GT-AH1, GT-AH2, GT-AH3, **or** GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two from a GT Pathway course from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Additional Required History Courses (15 Credits)

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

- Choose one additional GT Pathways HIS course (GT-HI1) *

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Electives (11 Credits)

Determined by transferring institution

Note: Students planning to transfer to University of Colorado Boulder must take either HIS 101 or HIS 102 to fulfill this requirement.

Students planning to transfer to CSU-Fort Collins are advised to complete at least two semesters of one college-level foreign language.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. History, Anthropology, & Political Science: History)
- Colorado Mesa University (B.A. History; History or Secondary Education concentrations)
- Colorado State University-Ft. Collins (B.A. History; General History concentration)
- Colorado State University-Pueblo (B.A. History; General emphasis; B.S. History; General emphasis)
- Fort Lewis College (B.A. History; United States Option)
- Metropolitan State University of Denver (B.A. History)
- University of Colorado, Boulder (B.A. History)
- University of Colorado, Colorado Springs (B.A. History)
- University of Colorado, Denver (B.A. History)
- University of Northern Colorado (B.A. History; Liberal Arts emphasis)
- Western State Colorado University (B.A. History)

HIT Medical Coding AAS

See list of Department Chairs on the Personnel page.

Program Description

This program prepares students for professions in the Health Information Management field. The roles of clinicians and information technologies are explored, specifically addressing electronic health records (EHR), safer and cost effective health practices, and the transfer of personal health information nationwide (Health Information Exchange HIE). The HIT program has two degree offerings: Medical Coding and Healthcare Information Systems. The Introduction to Health Information Technology Certificate and the Medical Coding Certificate serve as stackable credentials for those who have formal training in other disciplines such as Office Management or Cyber Security.

Total Credits: 62

State Guaranteed Transfer Courses (16 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum Requirements (23 credits)

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HIT 261 - Healthcare Software

Credit(s): 3

Lecture Hour(s): 3

This course covers basic computer system architecture, file structure and design for healthcare settings. Topics include system analysis, design, security and selection for a variety of hardware environments. This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application. Security and confidentiality issues, concerns and implications in relation to the electronic health record will be addressed.

HIT 225 - Health Information Management

Credit(s): 3

Lecture Hour(s): 3

Concentrates on the principles of management as they relate to the administration of the health information management department as part of a healthcare organization.

HIT 222 - Quality Management

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the basic concepts of quality management in the healthcare environment. Requirements by regulatory agencies regarding quality documentation, utilization and risk management are discussed. Data collection, verification, analysis, descriptive statistics and presentation techniques will be studied. The course emphasizes the

ongoing use of objective data and feedback to improve processes, systems and patient outcomes. Analysis of documentation for various purposes is also covered.

HIT 112 - Legal Aspects for Health Records

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the legal system and defines the role of the healthcare professionals. Specific federal and state laws are identified and discussed as they relate to release of medical information.

HIT 289 - HIT Capstone Course

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department approval required

Provides a demonstrated culmination of learning within a given program of study.

Medical Coding (23 credits)

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

HIT 220 - ICD Coding I

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232

Introduces the ICD coding classification system and provides a basic understanding of ICD structure, conventions and principles utilized in code assignment. The student will be introduced to the official coding guidelines. They will apply knowledge of anatomy, physiology, pathophysiology and pharmacology in the assignment of diagnostic and procedural codes.

HIT 241 - CPT Coding Basic Principles

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232.

Provides the student with skill sets to apply the current procedural terminology (CPT) and HCPCS code set principles and guidelines for application in reporting/communicating information and data about clinical services provided to patients by healthcare providers. Includes understanding what the CPT nomenclature is, how and why it is used, and guidelines for each code category and how it is applied to represent services within each code category.

HPR 232 - Disease Process and Treatment

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 106

Covers disease processes and drug therapy used to treat commonly found pathological conditions. Normal anatomy and physiology of each body system is reviewed. Conditions that disrupt homeostasis are examined. Conditions considered are both acquired and congenital. Diagnostic methods, management, treatment modalities and prognosis are discussed. Classifications of drugs are introduced. A general understanding of the actions; absorption, metabolism and excretion; and reasons for use of various groups of pharmacologic agents are introduced.

HIT 252 - Coding II for Certification

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Covers medical necessity and coding issues using ICD and CPT coding principles. Students should already possess a fundamental understanding of the CPT, ICD and HCPCS coding principle. Intensive coding application will be achieved through the use of medical records, case studies and scenarios. DRGs, APCs, RUGs, RBRVs and the Correct Coding Initiative (CCI) will also be covered in this class.

HIT 105 - Principles of Healthcare Reimbursement

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Provides students with the knowledge needed to perform necessary tasks involved in healthcare reimbursement systems, including payment methodologies, use of clinical data and compliance.

HIT 188 - Health Information Practicum I

Credit(s): 2

Practicum Hour(s): 4

Prerequisite(s): HIT 252 or Department Chair Approval.

Provides a directed clinical experience which focuses on the practice of skills related to the application of legal principles, record analysis and abstraction and record retention and retrieval.

HIT 268 - Certification Test Preparation

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares students who have made the decision to obtain a national health information technology credential by completing national credentialing exams.

HIT Medical Coding Certificate

See list of Department Chairs on the Personnel page.

This program prepares students for professions in the Health Information Management field. The roles of clinicians and information technologists are explored, specifically addressing electronic health records (EHR), safer and cost effective health practices, and the transfer of personal health information nationwide (Health Information Exchange HIE). The HIT program has two degree offerings: Medical Coding and Healthcare Information Systems. The Introduction to

Health Information Technology Certificate and the Medical Coding Certificate serve as stackable credentials for those who have formal training in other disciplines such as Office Management or Cyber Security.

Total Credits: 42

HIT Medical Coding - AHIMA Accredited Certified Coding Associate (42 credits)

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

HIT 241 - CPT Coding Basic Principles

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232.

Provides the student with skill sets to apply the current procedural terminology (CPT) and HCPCS code set principles and guidelines for application in reporting/communicating information and data about clinical services provided to patients by healthcare providers. Includes understanding what the CPT nomenclature is, how and why it is used, and guidelines for each code category and how it is applied to represent services within each code category.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HPR 232 - Disease Process and Treatment

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 106

Covers disease processes and drug therapy used to treat commonly found pathological conditions. Normal anatomy and physiology of each body system is reviewed. Conditions that disrupt homeostasis are examined. Conditions considered are both acquired and congenital. Diagnostic methods, management, treatment modalities and prognosis are discussed. Classifications of drugs are introduced. A general understanding of the actions; absorption, metabolism and excretion; and reasons for use of various groups of pharmacologic agents are introduced.

HIT 261 - Healthcare Software

Credit(s): 3

Lecture Hour(s): 3

This course covers basic computer system architecture, file structure and design for healthcare settings. Topics include system analysis, design, security and selection for a variety of hardware environments. This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application. Security and confidentiality issues, concerns and implications in relation to the electronic health record will be addressed.

HIT 252 - Coding II for Certification

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Covers medical necessity and coding issues using ICD and CPT coding principles. Students should already possess a

fundamental understanding of the CPT, ICD and HCPCS coding principle. Intensive coding application will be achieved through the use of medical records, case studies and scenarios. DRGs, APCs, RUGs, RBRVs and the Correct Coding Initiative (CCI) will also be covered in this class.

HIT 105 - Principles of Healthcare Reimbursement

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Provides students with the knowledge needed to perform necessary tasks involved in healthcare reimbursement systems, including payment methodologies, use of clinical data and compliance.

HIT 188 - Health Information Practicum I

Credit(s): 2

Practicum Hour(s): 4

Prerequisite(s): HIT 252 or Department Chair Approval.

Provides a directed clinical experience which focuses on the practice of skills related to the application of legal principles, record analysis and abstraction and record retention and retrieval.

HIT 268 - Certification Test Preparation

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares students who have made the decision to obtain a national health information technology credential by completing national credentialing exams.

HIT 289 - HIT Capstone Course

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department approval required

Provides a demonstrated culmination of learning within a given program of study.

Hospitality Sales and Marketing Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 30

Certificate Requirements

General Education Requirements (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

Hospitality Sales and Marketing Requirements (21 Credits)

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

MAR 160 - Customer Service

Credit(s): 3

Lecture Hour(s): 3

Enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

Hospitality Studies, AGS (with Transfer Articulation Agreement)

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares students for a career in the growing hospitality industry. A Certificate in Hospitality Sales and Marketing will provide the tools necessary for entry-level positions in event planning, tourism and hospitality sales and marketing; the AGS degree with emphasis in Hospitality Sales and Marketing.

Program Description

The Hospitality Studies program focuses on teaching professionalism and work ethic for the hospitality industry. There is an emphasis on leadership, customer service, event planning, bartending and dining-room management throughout the program. Skills taught in the Hospitality Sales and Marketing track include sales, negotiations and marketing.

The Certificate in Hospitality Sales and Marketing is 30 credits and can be completed in two semesters. Courses in the Certificate can be used for the AGS degree. Students planning on pursuing a four-year degree in Hospitality should speak with an advisor regarding transferability of courses.

This program includes Learning Lab requirements. This is time scheduled outside of class where students perform specific tasks aligned to course learning outcomes in a professional environment. Students will graduate with industry-relevant work experience acquired at PCC. The Learning Labs program is unique to PCC and gives students the opportunity to practice work ethic and professionalism.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (7 Credits)

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

Social and Behavioral Sciences (9 Credits)

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

or

- GEO 105 - World Regional Geography: GT-SS2 **Credit(s): 3**

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

Art and Humanities (6 Credits)

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

ETH 224 - Introduction to Chicano Studies

Credit(s): 3

Lecture Hour(s): 3

Introduces students to skills development in multicultural education. Covers Chicano history, migration and labor, education, law and Chicano culture.

Core Curriculum Requirements (26 Credits)

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

MAR 160 - Customer Service

Credit(s): 3

Lecture Hour(s): 3

Enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Metropolitan State University

Industrial Technology Maintenance Level I Certificate

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The Industrial Technology Maintenance Level one Certificate provides foundational skills. Students may start as an entry level operator and are encouraged to obtain the Level Two Certificate and the degree to pursue careers as an electronics technician, an electro-mechanical technician, a semiconductor manufacturing technician, or an electro-mechanical field service technician.

Total Credits: 31

Certificate Requirements

Fall Semester (15 Credits)

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

Spring Semester (16 Credits)

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 254 - Industrial Wiring

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on the required and recommended practice for industrial wiring. The National Electrical Code is applied to industrial power and control wiring. Covers specification and installation of wiring, conduit, enclosures and termination components in lecture and applied during lab.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 265 - Mechanical Component II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes coupling, vibration, shafting, keys and keyways, belts and chain drives, gears and gear drive, and seals.

Industrial Technology Maintenance Level II Mini-Certificate

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The Industrial Technology Maintenance Level Two Certificate provides advanced technical skills as students pursue careers as an electronics technician, an electro-mechanical technician, a semiconductor manufacturing technician, or an electro-mechanical field services technician. Students are encouraged to obtain an AAS degree for supervisory positions.

Total Credits: 16

Certificate Requirements

Fall Semester

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 259 - Advanced Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 258.

Serves as the second in a two-course sequence and covers advanced topics and applications for programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes advanced programming, diagnostics, Human Machine Interfaces (HMIs), introduction to automation networking and system integration. Incorporates lab and project activities that address designing, operating, monitoring, programming, analyzing, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

Industrial Technology Maintenance, AAS

CIP 15.0303

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS degree in Industrial Technology Maintenance prepares you for a career as an electronics technician, an electro-mechanical technician, a semiconductor manufacturing technician, or an electro-mechanical field service technician.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

Any general education courses in (8 Credits)

- Arts/Humanities, or Social/Behavioral Science, or Communications, or Natural & Physical Sciences.

Recommendations are

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Core Curriculum Requirements (46 Hours)

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 254 - Industrial Wiring

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on the required and recommended practice for industrial wiring. The National Electrical Code is applied to industrial power and control wiring. Covers specification and installation of wiring, conduit, enclosures and termination components in lecture and applied during lab.

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 259 - Advanced Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 258.

Serves as the second in a two-course sequence and covers advanced topics and applications for programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes advanced programming, diagnostics, Human Machine Interfaces (HMIs), introduction to automation networking and system integration. Incorporates lab

and project activities that address designing, operating, monitoring, programming, analyzing, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 280 - Internship

Credit(s): 1-12

Internship Hour(s): 3-36

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 business location and with the direct guidance of the instructor.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

MAC 265 - Mechanical Component II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes coupling, vibration, shafting, keys and keyways, belts and chain drives, gears and gear drive, and seals.

MTE 238 - Fluid Power Control**Credit(s): 3****Lecture Hour(s): 1****Vocational Lab Hour(s): 3**

Introduces fluid power application in industry and various types of industrial control devices used in modern manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

WEL 102 - Oxyacetylene Joining Process**Credit(s): 4****Lecture Hour(s): 1****Vocational Lab Hour(s): 4.50**

Covers Oxy-fuel joining operations.

or

WEL 124 - Introduction to Gas Tungsten Arc Welding**Credit(s): 4****Lecture Hour(s): 1****Vocational Lab Hour(s): 4.50**

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

Infant Toddler Supervisor Mini-Certificate**CIP 13.1210**

See list of Department Chairs on the Personnel page.

Career Opportunities

The ECE program prepares you for a career in teaching children (birth to age 5). The program can also prepare you to become an Early Childhood Teacher or director in the field of Early Childhood Education.

Program Description

This program prepares you to become a productive, caring and responsible teacher. Classes emphasize child development skills in the areas of language, social, emotional, cognitive and physical development. Classes also focus on cultural diversity among children. You will become familiar with theories concerning child development and ECE, and you will participate in many group discussions and hands-on activities that you can apply in the preschool classroom. You will learn from qualified faculty members who believe in the success of each ECE student.

Program Requirements

Entrance Requirements:

You should demonstrate an interest in the care and well-being of young children. You must also be free from evidence of illness – mental and physical – and free from personal conduct which may be injurious to children as stated in the Colorado Rules and Regulations for Child Care Centers, section 7.702.51.

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section.

Total Credits: 12

Certificate Requirements

ECE 101 - Introduction to Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

Information Assurance Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 19

Certificate Requirements

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

Intermediate Production Mini-Certificate

CIP 12.0500

See list of Department Chairs on the Personnel page.

Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management and institutional food service supervision. The Tourism, Conventions and Events track prepares you for

employment in travel, tour management and event planning, as well as supervisory positions in the lodging and resort business.

Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions and Events track include event planning, tour management, supervision, business planning and development, marketing and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

Program Requirements

Entrance Requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, Communications and Computer usage.

Graduation Requirements:

In addition to program requirements, you must complete ENG 121, COM 115, a college math course, 3 credits of humanities, 3 credits of social science and 3 credits of computer instruction.

Total Credits: 16

Certificate Requirements

CUA 129 - Center of the Plate

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 125

Enables the student to plan and prepare a variety of complete meals in a commercial kitchen, focusing on center of the plate entrees including meat, poultry, seafood and vegetarian items. Meat, poultry and seafood handling and preparation, including basic forms and cuts, principles used for selecting products and appropriate cooking methods are emphasized. Vegetarian entrees are also covered, including methods for preparation and cooking of various types of potatoes, rice, legumes, pastas, casseroles and grain products, with special attention given to complimentary proteins.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

CUA 236 - Advanced Baking

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 101, CUA 145

Provides students the opportunity to refine their baking skills in the areas of desserts, yeast breads, garnishing and presentation of baked products. Enables the student to bake, garnish and present a variety of baked goods. These products are prepared and displayed for the public in various locations in the college.

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

- Electives **Credit(s): 3**

Introduction to Agriculture

A general program that focuses on modern business and economic principles involved in the organization, operation, and management of agricultural enterprises.

Total Credits: 9

Core Curriculum Requirements (9 credits)

AGB 102 - Foundations of Agri-Business

Credit(s): 3

Lecture Hour(s): 3

Focuses on the foundational aspects of the primary agriculture business areas including economics, management, marketing, sales and finance in an applied manner. Current events in agriculture are discussed with emphasis on application to agribusiness.

ASC 100 - Animal Sciences

Credit(s): 3

Lecture Hour(s): 3

Covers the basic fundamentals of livestock production including the principles of nutrition, reproduction, breeding, genetics, health, and physiology of cattle, sheep, swine, horses, and other farm species. Trends and issues in animal science and animal agriculture are also discussed in this course.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

Introduction to Health Information Technology

Please see list of department chairs on the Personnel page.

Program Description

This program prepares students for professions in the Health Information Management field. The roles of clinicians and information technologists are explored, specifically addressing electronic health records (EHR), safer and cost effective health practices, and the transfer of personal health information nationwide (Health Information Exchange HIE). The HIT program has two degree offerings: Medical Coding and Healthcare Information Systems. The Introduction to Health Information Technology Certificate and the Medical Coding Certificate serve as stackable credentials for those who have formal training in other disciplines such as Office Management or Cyber Security.

Total Credits: 18

Core Curriculum Requirements

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

HIT 112 - Legal Aspects for Health Records

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the legal system and defines the role of the healthcare professionals. Specific federal and state laws are identified and discussed as they relate to release of medical information.

HIT 120 - Working with Health IT Systems

Credit(s): 4

Lecture Hour(s): 4

Provides hands-on experience with a computerized HIT system/electronic health record, utilizing contemporary online systems with simulated data. The course will include additional lecture, project work and practice in the use of HIT systems. Students will play the role of practitioners using these systems and experience threats to security and gain an appreciation of the need for standards and high levels of usability. Students will also learn how errors can occur and ways to minimize them.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HIT 222 - Quality Management

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the basic concepts of quality management in the healthcare environment. Requirements by regulatory agencies regarding quality documentation, utilization and risk management are discussed. Data collection, verification, analysis, descriptive statistics and presentation techniques will be studied. The course emphasizes the ongoing use of objective data and feedback to improve processes, systems and patient outcomes. Analysis of documentation for various purposes is also covered.

Introduction to Media Communications Mini-Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 15

Certificate Requirements

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 112 - Adobe Illustrator I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Illustrator as an illustration, design and vector drawing tool. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design. Course competencies and outline follow those set by the Adobe Certified Associate exam in Visual Communication using Adobe Illustrator.

MGD 113 - Quark Xpress

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces students to QuarkXPress, a digital page layout tool. Students learn how to assemble, organize, manipulate and manage text and graphics to produce a high-quality publication. Class discussions and independent projects supplement hands-on classroom work.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

IT Industry Certification Preparation CER

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS IT Industry Certification Preparation Program provides the theory and technical training so that students are prepared to sit for examination to earn A+, Network+, and Security+ industry credentials, from CompTIA.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 16

Certificate Requirements

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 289 - Capstone

Credit(s): 1-6

Internship Hour(s): 3-18

Serves as the Capstone course for CIS majors. Incorporates projects that allow students to develop advanced techniques and assemble information from different courses. Most projects will include the creation of interactive application programs for the non-computer user and require research beyond the classroom to prepare the student for entry-level employment in a variety of situations.

IT Systems Administration AAS

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming, and database technologies along with classes that teach the technical aspects of the internet and data communications. Note: Students interested in transferring of a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section of this catalog.

Total Credits: 60

Communications (3 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

OR

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Mathematics (4 Credits)

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

OR

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

General Education Electives (9 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CIS Core (15 Credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 212 - Configuring Windows Server**Credit(s): 4****Lecture Hour(s): 3****Vocational Lab Hour(s): 1.50**

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

IT Systems Administration Core (25 Credits)**BUS 217 - Business Communication & Report Writing****Credit(s): 3****Lecture Hour(s): 3**

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

CIS 240 - Database Design and Development**Credit(s): 3****Lecture Hour(s): 3**

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL**Credit(s): 3****Lecture Hour(s): 2****Vocational Lab Hour(s): 1.50**

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CNG 104 - Intro to TCP/IP**Credit(s): 3****Lecture Hour(s): 3**

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

MAN 241 - Project Management in Organizations

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): MAT 107

Introduces students to the planning, implementation and control activities of project management, including project and performance evaluation, quality control and work flow analysis. Emphasis will be on the initiating, planning, executing, controlling and closing activities of project management.

Electives (4 Credits)

CNG 251 - Anti Virus Concepts

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Prepares the student for virus eradication. Focuses on how viruses work, how they are designed and how viruses are written. Emphasizes virus eradication and cleaning.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

Law Enforcement Academy Certificate

CIP 43.0107

See list of Department Chairs on the Personnel page.

Career Opportunities

The Law Enforcement program prepares students for careers in law enforcement as a police officers, desk officer, bailiff or corrections officer. Additionally, students could work as criminal investigators, detectives, police agencies, or in correction and judicial facilities.

Program Description

The Law Enforcement program teaches students an in-depth analysis of the three (3) components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathetic awareness of cultural diversity.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption to complete the Criminal Justice courses. Admission into the Law Enforcement Academy courses requires a student to file an application with the PLEA Department Chair and meet specific guidelines prior to admission into the program (such as state statutory requirements for background checks). You may enroll in PLEA courses only if you are admitted into the program.

Graduation Requirements:

In addition to program requirements for this program, you must complete ENG 121, COM 115, MAT 107 and six (6) credits of social and behavioral science courses.

Total Credits: 37

Certificate Requirements

LEA 101 - Basic Police Academy I

Credit(s): 6

Lecture Hour(s): 6

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.

LEA 102 - Basic Police Academy II

Credit(s): 12

Lecture Hour(s): 12

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge 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.

LEA 103 - Basic Law Enforcement Academy III

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Enhances the standards established by the POST board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a police officer. Emphasis will be on expanding the POST curriculum to create a unique learning experience.

LEA 105 - Basic Law

Credit(s): 8

Lecture Hour(s): 8

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.

LEA 106 - Arrest Control Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 107 - Law Enforcement Driving

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 108 - Firearms

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

Law Enforcement, AAS

CIP 43.0107

See list of Department Chairs on the Personnel page.

Career Opportunities

The Law Enforcement program prepares students for careers in law enforcement as a police officers, desk officer, bailiff or corrections officer. Additionally, students could work as criminal investigators, detectives, police agencies, or in correction and judicial facilities.

Program Description

The Law Enforcement program teaches students an in-depth analysis of the three (3) components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathetic awareness of cultural diversity.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption to complete the Criminal Justice courses. Admission into the Law Enforcement Academy courses requires a student to file an application with the PLEA Department Chair and meet specific guidelines prior to admission into the program (such as state statutory requirements for background checks). You may enroll in PLEA courses only if you are admitted into the program.

Graduation Requirements:

In addition to program requirements for this program, you must complete ENG 121, COM 115, MAT 107 and six (6) credits of social and behavioral science courses.

Total Credits: 67

Degree Requirements

General Education Requirements (15 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

- Select two courses in Social & Behavior Science **Credit(s): 6**

Related Requirements (15 Credits)

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 135 - Judicial Function

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Provides an overview of the structure and function of the dual American judicial system and the behavior of actors (judges/justices, lawyers, law clerks, interest groups, etc.) within the system. Emphasis is placed on the organization and administration of state and federal courts, criminal court procedures, juries, selection of judges, decision-making behavior of juries, judges and justices, and the implementation and impact of judicial policies.

CRJ 145 - Correctional Process

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Examines the history and total correctional process from law enforcement through the administration of justice, probation, prisons, correctional institutions and parole. Also examines the principles, theories, phenomena and problems of the crime, society and the criminal justice system from the perspective of criminology and the criminal justice system in general. Emphasizes the role of sociology and other interdisciplinary approaches to the field of corrections and society's response.

CRJ 210 - Constitutional Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 135.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Focuses on the powers of government as they are allocated and defined by the United States Constitution. The course includes intensive analysis of United States Supreme Court decisions.

CRJ 230 - Criminology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 145.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Provides an introduction to the study of crime, understanding the causes of crime, and examines, theoretical frameworks and theories to explain criminal behavior. Within a social context, consideration is given to how theories have emerged and understand how social context contributes to explanations of crime. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

or

CRJ 280 - Cooperative Education/internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department chair or program coordinator approval.

Provides work experience for students to gain practical work experience related to their educational program.

*Individuals desiring this Peace Officers Standard and Training (P.O.S.T.) course of study must file an application with the Police Academy coordinator before registering. Colorado State law requires that Police Academy students meet specific guidelines prior to admission. *Students pursuing a Police Science area of emphasis are expected to complete the Pueblo Law Enforcement Academy. This must be coordinated with the Director of the Academy and the assigned CRJ student advisor.

Common Core Requirements (37 Credits)

LEA 101 - Basic Police Academy I

Credit(s): 6

Lecture Hour(s): 6

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.

LEA 102 - Basic Police Academy II

Credit(s): 12

Lecture Hour(s): 12

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge 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.

LEA 103 - Basic Law Enforcement Academy III

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Enhances the standards established by the POST board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a police officer. Emphasis will be on expanding the POST curriculum to create a unique learning experience.

LEA 105 - Basic Law

Credit(s): 8

Lecture Hour(s): 8

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.

LEA 106 - Arrest Control Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 107 - Law Enforcement Driving

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 108 - Firearms

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

Leadership Studies Mini-Certificate

CIP 52.0201

See list of Department Chairs on the Personnel page.

Career Opportunities

The AAS and Certificate programs prepare you for entry level positions in marketing, management or sales; they also give you the skills you need to open your own business.

Program Description

Prepares students for lives of learning, leadership, and service; and designed to enhance and explore leadership potential through curricular design that includes academic courses, seminars, and community service opportunities. The Leadership certificate will verify student's leadership education and training for potential transfer colleges and employers. By obtaining a PCC leadership certificate, students should be able to demonstrate the following: 1.) Personal leadership development. 2.) Leadership skills (communication, motivation, team building, etc.). 3.) Critical thinking. 4.) Leadership theory. 5.) Civic engagement. 6.) Appreciation for diversity.

Total Credits: 12

Certificate Requirements

Leadership Certificate Requirements (9 Credits)

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

MAN 224 - Leadership

Credit(s): 3

Lecture Hour(s): 3

Focuses on the leadership skills for contemporary organizations. Covers development and communication a shared vision to motivate and empower employees to manage conflict, to negotiate, and to develop teams.

PSV 230 - Introduction to Civic Leadership

Credit(s): 3

Lecture Hour(s): 3

Enables the student to develop a critical understanding of public leadership through the study of pertinent models, theories and research.

Elective Courses (3 Credits)

(Select 3 credit hours)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

ompletion with a minimum C– grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 265 - Psychology of Personality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Investigates the major contemporary theories of personality. Covers psychodynamic, behavioral, cognitive-social learning, humanistic, trait and, optionally, neurobiological, existential and/or Eastern perspectives. The underlying assumptions and research support for these theories are appraised. Enables the student to gain an appreciation of the value of alternative theoretical approaches to this subfield of psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 268 - Organizational Psychology

Credit(s): 3

Lecture Hour(s): 3

Provides a comprehensive study of psychological principles and theories as applied to organizational behavior. Topics include motivation, job satisfaction, conflict supervision, human relations and stress management.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Library Technician Certificate

CIP 25.0301

See list of Department Chairs on the Personnel page.

Career Opportunities

The LTN program prepares you for a career in a variety of information environments including academic libraries, public libraries, school media centers, special libraries – corporate, correctional, law and medical – and other information services. In rural settings, the Library/Media Technician manages the library/media center and is the person responsible for providing additional library services, such as maintaining the computerized catalog and library webpage, conducting patron orientation and directing library programs.

Program Description

This program offers instruction in a variety of library functions including collection management (selecting and acquiring materials); cataloging; processing and repair of library materials; circulating and shelving materials; helping patrons with reference, readers' advisory and resource sharing services; and managing a small library or media center. We also train you in the nontechnical skills you need to be a successful library technician: customer service, listening, speaking, writing, attention to detail and working as a member of a team.

Program Requirements

Entrance Requirements:

The LTN program is designed for the student who, because of time or distance constraints, is looking for an online degree. The courses use the Desire2Learn platform.

If you plan to transfer to a bachelor's level program, consult with your advisor to determine the transferability of courses.

Total Credits: 30

Certificate Requirements

General Education Requirements (12 Credits)

- Social and Behavioral Sciences OR Humanities **Credit(s): 3**

Communications (6 Credits)

Select one:

- (ENG 121 and COM 115) or COM 125

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics (3 Credits)

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Core Curriculum Requirements (18 Credits)

LTN 101 - Introduction to Library Services

Credit(s): 3

Lecture Hour(s): 3

Introduces libraries and their procedures through research, vocabulary, readings and assignments. Identifies current tools such as wikis, blogs, podcasting, interactive web pages and other online services. Presents resources for library technicians.

LTN 110 - Selection and Acquisitions

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the tools, vendors, jobbers and approval plans that comprise the selection process. In addition, the student is introduced to acquisitions policy. The student engages in a course project whereby he/she applies a collection evaluation methodology to a section of a library collection and locates and recommends replacement titles.

LTN 115 - Library Circulation

Credit(s): 3

Lecture Hour(s): 3

Discusses customer service and circulation issues and procedures. Students will learn the role of customer service and the effects that automation has had on the circulation function of the library.

LTN 205 - Introduction to Cataloging & Classification

Credit(s): 3

Lecture Hour(s): 3

Introduces the library organization, how to use Dewey and Sears subject headings, elements of cataloging, practice in the use of Dewey and the Library of Congress classification systems, use of cutter tables, subject classification, accession numbers, and bar codes. Basic philosophy, procedures, tools and techniques for library routines are emphasized.

LTN 210 - Reference Materials

Credit(s): 3

Lecture Hour(s): 3

Teaches how to select reference materials, how to use at least 100 reference resources, the reference interview, and the role of resource sharing (interlibrary loan) in reference. Students will prepare a bibliography of the 100 titles they would want in their reference collection and 10 online sources they find useful.

LTN 220 - Library/Media Center Management & Public Relations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of LTN 101.

Includes budget preparation, how to work with staff, the public, and administrators, and the use of statistics.

Library Technician, AAS

CIP 25.0301

See list of Department Chairs on the Personnel page.

Career Opportunities

The LTN program prepares you for a career in a variety of information environments including academic libraries, public libraries, school media centers, special libraries – corporate, correctional, law and medical – and other information services. In rural settings, the Library/Media Technician manages the library/media center and is the person responsible for providing additional library services, such as maintaining the computerized catalog and library webpage, conducting patron orientation and directing library programs.

Program Description

This program offers instruction in a variety of library functions including collection management (selecting and acquiring materials); cataloging; processing and repair of library materials; circulating and shelving materials; helping patrons with reference, readers' advisory and resource sharing services; and managing a small library or media center. We also train you in the nontechnical skills you need to be a successful library technician: customer service, listening, speaking, writing, attention to detail and working as a member of a team.

Program Requirements

Entrance Requirements:

The LTN program is designed for the student who, because of time or distance constraints, is looking for an online degree. The courses use the Desire2Learn platform.

If you plan to transfer to a bachelor's level program, consult with your advisor to determine the transferability of courses.

Total Credits: 60

Degree Requirements

General Education Requirements (33 Credits)

* General Education must total 33 credits.

- English/Speech (Select one) **Credit(s): 6**
 - (ENG 121 and COM 115) or COM 125

- Mathematics **Credit(s): 3**
 - MAT 107 or higher
- Social and Behavioral Sciences **Credit(s): 12**
- Arts and Humanities **Credit(s): 12**

English/Speech (6 Credits)

Select one:

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

Core Curriculum Requirements (18 Credits)

LTN 101 - Introduction to Library Services

Credit(s): 3

Lecture Hour(s): 3

Introduces libraries and their procedures through research, vocabulary, readings and assignments. Identifies current tools such as wikis, blogs, podcasting, interactive web pages and other online services. Presents resources for library technicians.

LTN 110 - Selection and Acquisitions

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the tools, vendors, jobbers and approval plans that comprise the selection process. In addition, the student is introduced to acquisitions policy. The student engages in a course project whereby he/she applies a collection evaluation methodology to a section of a library collection and locates and recommends replacement titles.

LTN 115 - Library Circulation

Credit(s): 3

Lecture Hour(s): 3

Discusses customer service and circulation issues and procedures. Students will learn the role of customer service and the effects that automation has had on the circulation function of the library.

LTN 205 - Introduction to Cataloging & Classification

Credit(s): 3

Lecture Hour(s): 3

Introduces the library organization, how to use Dewey and Sears subject headings, elements of cataloging, practice in the use of Dewey and the Library of Congress classification systems, use of cutter tables, subject classification, accession numbers, and bar codes. Basic philosophy, procedures, tools and techniques for library routines are emphasized.

LTN 210 - Reference Materials

Credit(s): 3

Lecture Hour(s): 3

Teaches how to select reference materials, how to use at least 100 reference resources, the reference interview, and the role of resource sharing (interlibrary loan) in reference. Students will prepare a bibliography of the 100 titles they would want in their reference collection and 10 online sources they find useful.

LTN 220 - Library/Media Center Management & Public Relations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of LTN 101.

Includes budget preparation, how to work with staff, the public, and administrators, and the use of statistics.

Electives Approved by Advisor (9 Credits)

All electives must be approved by the LTN Advisor. Students must take sufficient electives to meet the minimum 60 credit hour requirements for the associate degree.

Local Anesthesia and Nitrous Oxide/Oxygen Sedation Mini-Certificate

CIP 51.0602

See list of Department Chairs on the Personnel page.

Career Opportunities

The Dental Hygiene program prepares you for a career in a variety of professional settings. The most familiar setting is the private dental office, where hygienists perform critical services to detect and prevent diseases of the mouth. Beyond the private dental office, you can find employment in nursing homes and long-term care facilities, hospitals, corporate health facilities, school systems and public health clinics. You may also work as an educator or researcher.

Program Description

The AAS Degree prepares you to provide dental hygiene services to patients and educate them in aspects of preventive dentistry. In our on-campus clinic, you will provide preventive and therapeutic services for patients under the supervision of Dental Hygiene faculty.

In the traditional role of dental hygienist, training includes prophylaxis, patient data gathering for dental hygiene diagnosis and treatment planning, fluoride treatment, sealant application, radiographic examination and nutritional counseling. In the expanded role of the dental hygienist, training includes treatment of periodontally-involved patients and treatment of handicapped, institutionalized and other medically compromised patients. You also learn to perform local anesthesia and administer nitrous oxide.

Because of the high level of personal and professional responsibility required of a dental hygienist, you must have integrity, maturity, individual motivation, good interpersonal skills, excellent manual dexterity and a solid science and general studies academic background to be successful in this program. We are firmly committed to fostering your intellectual growth and to developing well-qualified dental hygienists with high professional standards and ethics.

The Mini-Certificate in Local Anesthesia and Nitrous Oxide/Oxygen Sedation provides you with knowledge of the theory and practice of local anesthesia and nitrous oxide/oxygen sedation. This program teaches you to administer local anesthetics and nitrous oxide proficiently and safely. The administration of local anesthesia and nitrous oxide/oxygen sedation may be performed by licensed dental hygienists under the Colorado State Dental Practice Act. You must be currently enrolled in the Dental Hygiene program to enter this program.

Program Requirements

Entrance Requirements:

You must complete a current Dental Hygiene program application and meet all minimum requirements and application timelines. The application is available through the Dental Hygiene program, at the PCC Dental Hygiene website or in Admissions & Records. You should seek advisement from program faculty for assistance with applications, minimum requirements and required general education courses for admissions. In addition, all students entering the program will need a current CPR card good for 2 years.

If you are an AAS Dental Hygiene student, you must complete all General Education/Related Requirements.

Note: All students are accepted provisionally pending completion of a criminal background check. Disclaimer: The Colorado Board of Dental Examiners requires a dental hygienist applying for licensure to answer questions concerning felony history, excessive use or abuse of controlled substances/alcoholic beverages (within the last five years) and any physical or mental condition that may affect the ability to practice dental hygiene. Other questions asked by the State Board pertain to an applicant's history of malpractice judgment and any disciplinary action by any government or private agency. The PCC Department of Dental Hygiene assumes no responsibility for the denial of licensure by the Colorado State Board of Dental Examiners.

Total Credits: 3

Certificate Requirements

DEH 133 - Local Anesthesia

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 111, DEH 123, current enrollment in Dental Hygiene program.

Provides a working knowledge of the theory and practice of local anesthesia as applied to the practice of dentistry/dental hygiene. Emphasizes mastery of the armamentarium and techniques of regional anesthesia. Covers the knowledge and skills necessary to administer local anesthetics proficiently and safely.

DEH 138 - Nitrous Oxide/Oxygen Sedation

Credit(s): 1

Lecture Hour(s): 0.80

Voc/Tech Clinic Hour(s): 0.40

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Provides a working knowledge of the latest equipment and methods of nitrous oxide/oxygen sedation administration in the dental office.

Low Pressure Pipe Welder Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 16

Certificate Requirements

Core Requirements (16 Credits)

WEL 233 - 2G-Horizontal Pipe A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 104 or equivalent.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G horizontal position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 234 - 5G-Vertical Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 235 - 6G-45 Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 234.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 248 - Pipe Layout

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Using pipe template layout procedures and drawing procedures, perform cutting on pipe. Performs layout such as Y-fittings, laterals, full size tees, elbows, orange peel, bull plug, reducers, reducing tees and branch pipe.

Machining Technology, AAS

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Career Opportunities

The AAS Degree and certificate programs in Machining Technology prepare you to enter the manufacturing world using the latest technology and metalworking skills.

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

The AAS degree provides training in advanced manufacturing using manual and computer-controlled machines. Students will use CAD CAM software to create three-dimensional drawings, solids and surfaces. Students will then utilize geometry to create parts, which are then inspected for industry standard accuracy with top-of-the-line metrology equipment. If completing the AAS degree or currently working in the field, CAD CAM certification and NIMS credentials may be available.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 63

Degree Requirements

General Education Requirements (15 Credits)

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

- Any combination of Arts/Humanities/Social Sci/COM/Science **Credit(s): 5**

Core Curriculum Requirements (48 Credits)

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 130 - Conventional Lathe Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Includes calculation of speeds and feeds on various materials, identification and application of various work holding techniques, tool forming, advanced machining practices and applications, and spindle tooling. Students will learn how to calculate and turn tapers using the compound slide or taper attachment, offset work on a four jaw chuck, turning between centers, boring, grooving, finishing, single point threading, knurling, tool grinding, drilling operations, and reaming.

MAC 131 - Milling Machines & Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces vertical milling machines. The operations and applications will consist of using the machine controls, speeds and feeds, spindles, arbors and adapters cutting tools, tool holders, conventional and climb milling applications simple indexing, fixture alignments, work holding methods. Students will become familiar with set-up applications considering offset boring operations, face milling, plain milling, and precision drilling applications. Students will be required to produce parts to a tolerance of +/- .004in. and perform competencies set by manufacturing standards.

MAC 141 - Advanced Machining Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Provides the student the use of various conventional machine tools used in a machine shop environment. The use of engine lathes, horizontal and vertical milling machines, surface grinders, drill presses, pedestal grinders, power cut-off saws and other machine tools commonly used to produce quality machined parts in today 's manufacturing environments. Machining competencies will be stressed and students will be required to produce parts manufactured by local manufacturing companies with the consideration of ISO quality standards.

MAC 203 - Introduction to CNC Operations

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Introduces basic writing and editing of CNC programs. G&M codes, math, speeds feeds, production processes including basic process controls, simple fixturing, and documentation associated with manufacturing will be covered.

MAC 208 - CNC Operations II

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Further develops skills in writing and editing advanced CNC programs. G&M codes, math, speeds feeds, production processes including multi-part, process controls, fixturing, and documentation associated with manufacturing will be covered.

MAC 243 - Mastercam

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces the concepts of creating basic 2D and 3D Mastercam wireframes, building and manipulating surfaces and solids. The practices and techniques of fixture incorporation, tool pathing, and machine code generation will be discussed. Basic user interfaces and custom interface setup will be covered, as well as common file storage.

MAC 241 - CAD CAM 2D Lab

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Requires students to produce a variety of lab exercises on robotic machinery in conjunction with MAC 240 . Aspects of toolpaths for contour, drill and pocket will be covered. Chaining geometry, setting parameters, and managing cutter compensations will be addressed in both multi-tool programs and remachining operations. Coursework will primarily focus on 2D geometry projects.

MAC 250 - Advanced Inspection Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of quality control, TQM and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

EGT 205 - Geometric Dimension & Tolerance

Credit(s): 3

Lecture Hour(s): 3

Focuses on interpreting and applying geometric dimensioning and tolerancing (GDT) in machining or drafting per the ASME Y14.5 specification. Demonstrate and distinguish GDT through math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, run-out and location. Students examine and interpret the generation of a working drawing and how they are developed as a team effort between design, drafting, manufacturing and quality control.

CAD 255 - Solidworks/Mechanical

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces parametric feature-based solid modeling 3D concepts to build confidence in 3D thinking and progresses to three-dimensional parameters. The student learns to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models.

Machining Technology, Inspection Certificate

See list of Department Chairs on the Personnel page.

Total Credits: 9

Certificate Requirements

MAC 250 - Advanced Inspection Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of quality

control, TQM and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

EGT 205 - Geometric Dimension & Tolerance

Credit(s): 3

Lecture Hour(s): 3

Focuses on interpreting and applying geometric dimensioning and tolerancing (GDT) in machining or drafting per the ASME Y14.5 specification. Demonstrate and distinguish GDT through math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, run-out and location. Students examine and interpret the generation of a working drawing and how they are developed as a team effort between design, drafting, manufacturing and quality control.

Magnetic Resonance Imaging, BAS

CIP 51.0911

See list of Department Chairs on the Personnel page.

Career Opportunities

The BAS in Radiologic Technology program prepares students for careers in Computed Tomography (CT) or Magnetic Resonance Imaging (MRI), Leadership and Teaching in Medical Imaging.

Program Description

The BAS in Radiologic Technology program teaches students to perform Computed Tomography (CT) exams or Magnetic Resonance Imaging (MRI) exams as well as how to lead or teach others in the Medical Imaging Department. It provides students with an additional imaging modality and prepares them to take on leadership roles in the imaging department in health care facilities.

Program Requirements

Entrance Requirements:

Applicants must hold an associate's degree and be a registered radiologic technologist with the American Registry of Radiologic Technologists (ARRT).

Graduation Requirements:

Must complete 120 credits including didactic and clinical components of the program.

Total Credits: 43

Curriculum Requirements (43 Credits)

First Year-Fall Semester

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

First Year-Spring Semester

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

RTE 321 - Theory and Application of MR Imaging I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental principles of MRI in order to perform clinical MRI examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

Summer Semester

RTE 331 - MRI Protocols and Procedures

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Develops the knowledge necessary to perform procedures for imaging various anatomical structures utilizing MRI. It provides instruction on routine parameter selection, patient positioning, coil selection and application and anatomy and pathologies demonstrated on MR images.

RTE 381 - Internship: MRI I

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in MR imaging exams. The Internship allows the student to gain clinical experience and develop proficiency in MRI.

Second Year-Fall Semester

RTE 421 - Theory and Application of MR Imaging II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 321.

Examines in-depth knowledge of designing MRI pulse sequences, data manipulation, artifacts and quality control and quality assurance procedures. Special consideration will be given to methods to shorten scan time, k-space filling and reconstruction, Fast Fourier Transform and image transfer and storage systems used in healthcare facilities.

RTE 431 - Advanced MRI Protocols and Procedures

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): RTE 331.

Examines specialized advancements in MRI. Emphasis will be placed on the heart and vasculature, functional imaging, contrast agents and their uses, enterography, pelvic run-off and breast imaging.

RTE 461 - Leadership in Medical Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Examines concepts and skills needed for leadership roles in Medical Imaging. It prepares the student with communication, time management, supervision, task delegation, conflict management and performance assessment skills.

or

RTE 462 - Teaching Methodologies in Medical Imaging Education

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Provides a general overview of the concepts and theory of Medical Imaging education. It introduces current theories of teaching adult learners in the Imaging Sciences, objective development of active learning activities, classroom assessment techniques and delivering course content through distance-learning formats.

RTE 481 - Internship: MRI II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 381.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in MRI.

Manicurist Certificate

CIP 12.0410

See list of Department Chairs on the Personnel page.

Career Opportunities

The Cosmetology program prepares students for careers in cosmetology, hairstyling, esthetics (facial care) and manicure (nail care). Students will receive the specialized training necessary to be prepared for a successful career with limitless opportunities for both men and women. Students learn the skills to keep pace with the fashion world and stand ready to meet the constantly changing demands of one of today's largest-growing service industries. Those opportunities can provide both part-time and full-time employment in specialty areas.

Program Description

The Cosmetology program teaches students job entry skills, customer communication and shop procedures. Instruction includes professional ethics, bacteriology, shampoo and rinses, color theory, hair coloring techniques, permanent waving, hairstyling, hair cutting, manicures, pedicures, facials, makeup, OSHA regulations, sanitation, safety and Colorado laws. Clinical practice involves working on the public under supervision and parallels, as close as possible, actual shop procedures in order to prepare students for working in the field.

- Manicurist certificate – This certificate program provides training in nail care. Instruction is provided in manicuring, pedicure, nail design extensions and nail artistry.

Total Credits: 20

Certificate Requirements

Core Requirements (20 Credits)

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful

business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

NAT 108 - Introduction of Manicuring/Pedicures/Artificial Nails

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 110 - Introduction to Manicures & Pedicures

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction in the proper use of implements used in manicures and pedicures. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures and pedicures is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 111 - Intermediate Manicures & Pedicures

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures, nail art and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service. Proper sanitation and sterilization as it pertains to all aspect of manicures, pedicures and nail art is taught.

NAT 158 - Intermediate Manicuring/Pedicures/Artificial Nails

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 159 - Intermediate Manicuring/Pedicures/Artificial Nails II

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered.

Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 208 - Advanced Manicuring/Pedicures/Artificial Nails

Credit(s): 4

Voc/Tech Clinic Hour(s): 8

Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.

NAT 210 - Advanced Manicures & Pedicures

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): NAT 211.

Presents theory and practical application dealing with different types of manicures, pedicures massage techniques and nail art. Theory and practical application of procedures, products, nail shapes and maintenance of the natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

Manual Machining Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

This is a NIMS Accredited program

Program Description

Students will start their career in Machining Technology by building a strong foundation in machining by learning to use various tools, such as hand tools, manual machines and grinding tools. Students develop introductory skills in print reading. They are also taught how to use CAD CAM software, which enables students to create two-dimensional drawings and gain experience with computer-aided manufacturer software. Learning G&M Code for manual CNC (Computer Numerical Control) programming is a focus, as well as setup and operations of CNC equipment.

Work experience may be converted to college credit through credit-by-portfolio or credit-by-challenge.

Total Credits: 16

Certificate Requirements

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 130 - Conventional Lathe Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Includes calculation of speeds and feeds on various materials, identification and application of various work holding techniques, tool forming, advanced machining practices and applications, and spindle tooling. Students will learn how to calculate and turn tapers using the compound slide or taper attachment, offset work on a four jaw chuck, turning between centers, boring, grooving, finishing, single point threading, knurling, tool grinding, drilling operations, and reaming.

MAC 131 - Milling Machines & Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces vertical milling machines. The operations and applications will consist of using the machine controls, speeds and feeds, spindles, arbors and adapters cutting tools, tool holders, conventional and climb milling applications simple indexing, fixture alignments, work holding methods. Students will become familiar with set-up applications considering offset boring operations, face milling, plain milling, and precision drilling applications. Students will be required to produce parts to a tolerance of +/- .004in. and perform competencies set by manufacturing standards.

MAC 141 - Advanced Machining Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Provides the student the use of various conventional machine tools used in a machine shop environment. The use of engine lathes, horizontal and vertical milling machines, surface grinders, drill presses, pedestal grinders, power cut-off saws and other machine tools commonly used to produce quality machined parts in today 's manufacturing environments. Machining competencies will be stressed and students will be required to produce parts manufactured by local manufacturing companies with the consideration of ISO quality standards.

Manual Transmissions Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 7

Certificate Requirements

ASE 151 - Automotive Manual Transmission/Transaxles & Clutches

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive manual transmissions, transaxles, clutches, and related components. This course meets AST/MAST requirements.

ASE 152 - Manual Transmission, Transaxles and Clutches II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel and all-wheel drive units.

ASE 253 - Advanced Manual Transmission/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles, clutches and their related components on customer vehicles.

ASE 281 - Internship: Basic Heavy Duty and Power Train

Credit(s): 1

Internship Hour(s): 3

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Mass Communications, AGS (with Transfer Articulation Agreement)

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of General Studies degree with an emphasis in Mass Communications prepares you for a career in journalism, radio/TV broadcasting, advertising, public relations or New Media Technology by providing a two-year foundation of courses designed to transfer to four-year colleges and universities.

Program Description

This program teaches you to think critically and develops your skills in news writing, television and radio production, advertising, videography and web design. Courses provide a solid foundation in these areas through a mixture of lecture and hands-on application. A fully equipped video control room and a mobile production truck provide you with multi-camera working classrooms. Several nonlinear editing suites offer you a diversity of experience in the changing field of communication. You will also gain experience in production and digital media through our media lab and the many volunteer opportunities we offer.

Transferability of courses depends upon the courses taken and the receiving institution. The PCC/CSU-Pueblo Transfer Agreement allows the AGS Media Communications graduate to transfer to the Colorado State University-Pueblo Mass Communications Department with a junior standing.

Please see the certificate option - Broadcasting & Production Technology Certificate.

Total Credits: 60

General Education Requirements (35 Credits)

Should be GTPathway courses

Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

Mathematics (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

Physical & Life Sciences (Courses with Required Labs) (8 Credits)

Select two courses from:

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the

conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

ENV 101 - Environmental Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources, pollution and environmental protection. Using a holistic approach, students will study how the foundations of natural sciences interconnect with the environment. This course includes laboratory experience.

GEO 111 - Physical Geography: Landforms with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces students to the principles of Earth's physical processes, emphasizing landforms, soils and hydrology. Examines the formation and distribution of landforms, such as mountains, valleys and deserts, and their shaping by fluvial and other processes. The course incorporates an integrated process of lectures, discussion and laboratory assignments.

GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the principles of meteorology, climatology, world vegetation patterns and world regional climate

classification. The course includes investigating the geographic factors which influence climate, such as topography, location, elevation, winds and latitude.

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

GEY 135 - Environmental Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Introduces the subject of geology as it relates to human activities. Geologic hazards such as floods, landslides, earthquakes, and volcanoes are investigated. Mineral, energy, soil, and water resources are discussed in terms of their geologic formation and identification, usage by society, and associated environmental impacts. Land use issues, waste, and pollution are also examined.

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 107 - Energy Science & Technology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Explores the science of energy and energy technologies, with a focus on renewable energy resources and clean technologies. It provides a background in the physics of energy, energy transfer and the current state of technology. Students will evaluate the future utilization of renewable technologies. Activities may include investigating conservation of energy, mechanical, electrical, heat and fluid power systems; energy transfer and loss; understanding energy audits; testing solar collectors and wind generators; and investigating hydrogen fuel cells. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

Select three courses from any one category:

Arts and Expression

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 121 - Music History Medieval Thru Classical Period: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music from the Middle Ages into the Classical period, including styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 122 - Music History Early Romantic Period to the Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music connecting the classical period to the Romantic period and following to the present. This course includes the study of styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 125 - History of Jazz: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of jazz history covering the basic materials of music and the forms, media, genres, and the historical and cultural framework of each style period. This course emphasizes the building of critical listening tools and the development of a jazz music vocabulary. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 211 - Development of Theatre Greek-Renaissance: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 212 - Development of Theatre Restoration to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 215 - Playwriting: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Gives students the opportunity to learn and practice playwriting techniques, thereby improving creative writing skills. Elements of dramatic structure, dialogue, styles and theatrical practices are emphasized. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

Literature and Humanities

HUM 103 - Introduction to Film Art: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Studies the relationships among film's stylistic systems, narrative systems and audience reception. Students view, discuss and critically analyze a variety of films which represent a variety of genres and themes. The course incorporates the vocabulary of stylistic systems (for instance, cinematography and editing) and narrative systems (for instance, story structure and character motivation) as both relate to the kinds of meanings a film conveys. This course is approved as part of the Colorado Statewide Guaranteed transfer curriculum: GT:AH2.

HUM 115 - World Mythology: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces students to a multidisciplinary approach to world mythology. Common themes are illustrated and connected to religion, philosophy, art, literature, music and contemporary culture. In addition, students will study various ways of interpreting myth. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 121 - Humanities: Early Civilization: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the prehistoric to the early medieval era. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 122 - Humanities: Medieval - Modern: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the medieval to the early modern era. This is a statewide Guaranteed Transfer course in the GT-AH2 category. GT-AH2

HUM 123 - Humanities: Modern World: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 205 - Ethnic Literature: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Focuses on significant texts by ethnic Americans, including African-American, Native American, Latino/a and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 212 - American Literature After Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the mid-19th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 225 - Introduction to Shakespeare: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 246 - Literature of Women: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the techniques and themes in literature by and about women by examining women's issues from various genres. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

Ways of Thinking

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 114 - Comparative Religions: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the major world religions from both the Eastern and Western world such as Hinduism, Buddhism, Confucianism, Taoism, Zoroastrianism, Judaism, Christianity, Islam, Bahá'í and influential preliterate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological) to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 115 - World Religions-West: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to religions of the Western world: Zoroastrianism, Judaism, Christianity, Islam, Bahá'í, and influential pre-literate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological), to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets, and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 218 - Environmental Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Critically analyzes theories of value of the natural world. Topics include the relation between scientific and moral principles; theories of the moral worth of persons, animals, plants and other natural objects; historical, religious and cultural influences on conceptions of nature; alternative accounts of human relationships and responsibilities to nature, including deep ecology and eco-feminism; and the connection between moral and political values and economic policies. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 220 - Philosophy of-Death and Dying: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Explores the major philosophical questions surrounding death and dying: the metaphysical arguments for and against the existence of a soul and life after bodily death; the epistemological assessment of arguments for the soul and life after death; the ethical justifications taken on positions such as rational suicide and physician assisted suicide, as well as a focus on philosophy's existentialist contribution to questions about the meaning of life and the meaning of death. This course is one of the statewide Guaranteed Transfer courses. GT-AH3.

Foreign Languages

SPA 211 - Spanish Language III: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 112 or Department Chair Approval.

Continues SPA 111 - Spanish Language I and SPA 112 - Spanish Language II in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish Language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

SPA 212 - Spanish Language IV: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 211 or Department Chair Approval.

Continues Spanish Language III in the development of increased functional proficiency at intermediate mid level in speaking, aural comprehension, reading, writing, and cultural competency in the Spanish language. This course is conducted predominantly in Spanish. This is a statewide Guaranteed Transfer course in the GT-AH4 category. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

Social and Behavioral Science (9 Credits)

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Select Three Courses in at Least Two Categories

History

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 225 - Colorado History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Presents the story of the people, society and cultures of Colorado from its earliest Native Americans through the Spanish influx, the explorers, the fur traders and mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists and the modern state. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 247 - 20th Century World History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Investigates the major political, social and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Economic or Political Systems

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

ECO 245 - Environmental Economics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Introduces contemporary environmental issues and policies meant to reduce environmental degradation. It introduces the concept of market failure due to pollution. The course covers government pollution reduction policies for air, water,

and natural environments. It also covers analytical tools that are used to analyze the effectiveness of these policies. This is a statewide Guaranteed Transfer course in the GT-SS1 category. GT-SS1

POS 105 - Introduction to Political Science: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and nondemocratic governments and processes, and international relations. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 125 - American State and Local Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the structure and function of state, county and municipal governments, including their relations with each other and with national government. Includes a study of Colorado government and politics. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

Geography

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

GEO 106 - Human Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Introduces geographic perspectives and methods in the study of human societies by examining the spatial characteristics of populations, language, religion, ethnicity, politics, and economics. This course examines the relationships between physical environments and human societies. This is a statewide Guaranteed Transfer course in the GT-SS2 category. GT-SS2

Human Behavior, Culture, or Social Frameworks

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 107 - Introduction to Archaeology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. The course provides a survey of the archaeology of different areas of the Old and New Worlds, the works of selected archaeologists, and major archaeological theories. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

ETH 200 - Introduction to Ethnic Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the issues of race and ethnicity. Emphasizes ethnic relations in the United States as it pertains to four major groups – Americans of African, Asian, Latino and Native descent. Explores issues of racial and ethnic identity, racism and discrimination, stereotyping, prejudice, segregation, colonialism, integration and acculturation.

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 205 - Psychology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines gender comparisons in work, courtship, family life and sexual behavior throughout the lifespan. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 217 - Human Sexuality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Surveys physiological, psychological and psychosocial aspects of human sexuality. Topics include relationships, sexual identity and sexual health. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 231 - Positive Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

explore strengths-based research, concepts of happiness, helpfulness and resiliency. The research and theories about human nature will go beyond simply not being mentally ill as a form of mental health, which will include optimism, post-traumatic growth, and how to increase emotional, psychological and social functioning. Overall, this course will be focused on understanding one's own sense of life satisfaction and how to further improve well-being. This course is approved as part of the Colorado statewide Guaranteed transfer curriculum: GT: SS3.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 238 - Child Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the growth and development of the individual from conception through childhood, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 240 - Health Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the scientific study of attitudes, behaviors, and personality variables related to health, illness, and bodily systems. The course emphasizes the interaction of biological, psychological, and social factors that cause illness and influence its treatment and prevention. This is a statewide Guaranteed Transfer course in the GT-SS3 category. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 265 - Psychology of Personality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Investigates the major contemporary theories of personality. Covers psychodynamic, behavioral, cognitive-social learning, humanistic, trait and, optionally, neurobiological, existential and/or Eastern perspectives. The underlying assumptions and research support for these theories are appraised. Enables the student to gain an appreciation of the value of alternative theoretical approaches to this subfield of psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 205 - Sociology of Family Dynamics: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles. This course is one of statewide Guaranteed Transfer courses, GT-SS3.

SOC 207 - Environmental Sociology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examination of humans and the environment from an ecological perspective. Focuses on industrial and economic growth versus sustainability, natural resources development and management, environmental values and social movements, and comparative perspectives on people's relationship to the environment. Review of the Green movement and other environmental movements and their impacts upon social dynamics, the environment and the evolution of social movements.

SOC 215 - Contemporary Social Problems: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores current social issues that result in societal problems. It focuses on such issues as civil liberties, gender discrimination, substance abuse, crime, poverty and social change. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 216 - Sociology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Gives students the theoretical and factual background necessary to understand the phenomenon of gender stratification in American and other cultures. Students will be exposed to a history of gender stratification in human societies, theoretical explanations for this and insights into the consequences of gender differentiation in our world today. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 218 - Sociology of Diversity: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores the variety of intergroup relations regarding race, nationality, ethnicity, gender, sexual orientation and other diversity issues. Patterns of prejudice, discrimination and possible solutions to these issues will be addressed. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 237 - Sociology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides an opportunity to familiarize students and professionals with the needs and issues surrounding dying and death. This course will provide sociological, psychological, religious, historical and anthropological perspectives for interpreting contemporary American customs dealing with dying, death and bereavement. We will examine the professions associated with death and dying, such as hospice, funeral and crematory institutions, and medical care. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

WST 200 - Introduction to Women's Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature and function of women in society from an interdisciplinary perspective, focusing on the similarity and diversity of women's experience over time and across cultures. The course will examine topics such as sex role, socialization, political and philosophical perspectives on women's issues, and women's accomplishments in history, art, literature, science, health issues and the family. Students will gain an awareness of the limitations of traditional scholarship on women and gain a means of practical application of the new scholarship on women's roles and nature. This course is one of the statewide Guaranteed Transfer Courses, GT-SS3.

Core Curriculum Requirements (25 Credits)

JOU 206 - Intermediate Newswriting and Editing

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): JOU 105, ENG 121, or Department Chair Approval

Presents how to gather information as an investigative reporter through research of local, state and federal government publications, how to cover police beat and city hall, how our courts and regulatory agencies function, and how to cover other challenges such as the environment, religion, science, medical, public safety and business.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 289 - Capstone

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

A demonstrated culmination of learning within a given program of study.

RTV 100 - Introduction to Electronic Media

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the market demands involving national, local and international uses of electronic media.

Choose 15 credits below

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 114 - Adobe Indesign

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces students 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.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

RTV 102 - Beginning Television

Credit(s): 3

Vocational Lab Hour(s): 4.5

Focuses on principles and techniques of television production in theory and the approach of studio and production. Emphasizes producing television programs, beginning with a concept through script to actual studio production, pre-production and post-production.

Mathematics, AS (with Designation)

CIP 24.0199

Career Opportunities

The Associate of Science Degree with Designation in Mathematics prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a bachelor's degree in mathematics. Bachelor degree curriculums allow students to prepare for graduate school, teaching careers, or employment in areas that require mathematics, such as actuarial science, computer science, engineering or statistics.

Program Description

The Associate of Science Degree with Designation in Mathematics is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in mathematics. Completion of the AS degree completes the first two years of a mathematics bachelor's degree, and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in mathematics.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AS Degree with Designation in Mathematics, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Requirements (39 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (5 Credits)

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

- Select three GT Pathway courses from any category: (GT-AH1, GT-AH2, GT-AH3, **or** GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathway courses from any category (GT-SS1, GT-SS2, **or** GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (16-17 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

or

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

Electives (4-5 Credits)

Determined by transferring institution

Transfer Degrees

** CSU-Fort Collins requires a different computer science course than the community college course. Students should seek advising at CSU-Ft. Collins for information on the appropriate computer science course to take.

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Mathematics)
- Colorado Mesa University (B.S. Mathematics; Mathematics, Secondary Education or Statistics concentrations)
- Colorado State University-Ft. Collins (B.S. Mathematics)
- Colorado State University-Pueblo (B.A. Mathematics; B.S. Mathematics)
- Fort Lewis College (B.A. Mathematics; Mathematics option)
- Metropolitan State University of Denver (B.A. Mathematics)
- University of Colorado, Boulder (B.A. Mathematics)
- University of Colorado, Colorado Springs (B.A. Mathematics; B.S. Mathematics)
- University of Colorado, Denver (B.S. Mathematics)
- University of Northern Colorado (B.S. Mathematics; Applied Mathematical Sciences or Liberal Arts emphasis)
- Western State Colorado University (B.A. Mathematics)

Med Prep for Nursing Assistant Mini-Certificate

CIP 51.9999

See list of Department Chairs on the Personnel page.

Program Description

The Med Prep program provides students with the opportunity to develop skills and knowledge for health occupations. This program is nine months in length; however, students have the option of taking either one or both semesters.

During the fall semester, students will pursue a common core of instruction. This course is structured to provide the students with a broad academic and vocational foundation in the health care professions. An introduction to the health care professions is provided through field trips, speakers, classroom activities and laboratory experiences. Students will have presentations by medical professionals who are currently working in the field to offer insight into the medical careers available. Students will receive instruction in nurse assisting and will be eligible to take the State Certification test.

The second semester will provide students with career development skills such as resume writing, portfolio building, interviewing techniques and basic knowledge about how to be successful in the professions of health care. Students will also obtain job exploration experience (job shadowing) at several health care agencies in the area. At the end of the semester, students will receive a certificate for Clinical Medical Assistant/Pharmacy Aid.

Total Credits: 14.5

Certificate Requirements

HPR 100 - Introduction to Health

Credit(s): 3

Lecture Hour(s): 3

Provides an exploratory course for students interested in a health career. Basic health skills such as vital signs and CPR will be included.

HPR 178 - Medical Terminology

Credit(s): 1-4

Lecture Hour(s): 1-4

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

Medical Assistant Certificate

CIP 51.0801

See list of Department Chairs on the Personnel page.

Career Opportunities

The Medical Assistant Program will prepare the student for a career in medical assisting. Medical assistants can work in a variety of settings – physician offices, outpatient facilities, urgent care centers and other ambulatory health care services. Medical assistants play a vital role in the success of a medical practice and play the role of a liaison between the physician and the patients.

Program Description

The Medical Assistant program will prepare the student to primarily work in the back office of a medical practice, along with teaching some basic front office duties. Students will be taught the clinical tasks of drawing blood, giving injections, performing lab tests, taking patient histories and measuring vital signs. The administrative tasks include scheduling appointments, coding medical information and bookkeeping. Students will serve an internship and prepare for a national certification exam to become a Registered Medical Assistant.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Enrollment in the program is limited. Students must apply for admission to the program prior to the deadline. Students will be notified in writing of conditional acceptance. Clinical sites used during the program require that you successfully complete a background check and drug screen. These need to be completed before final acceptance into the program. Students must also obtain CPR certification and immunization series within the first semester of the program.

Graduation Requirements:

Students must complete all credits and courses listed in the curriculum with a "C" grade or higher.

Total Credits: 40

Certificate Requirements

Semester 1 - Fall

HPR 106 - Law & Ethics for Health Professions

Credit(s): 2

Lecture Hour(s): 2

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

MAP 110 - Medical Office Administration

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the administrative duties specifically used in medical offices.

MOT 125 - Basic Medical Sciences I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required.

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the immune, musculoskeletal, and digestive systems. A discussion of pediatric implications as they relate to clinical physiology will also be covered. The scope of the material is limited to the medical office technology personnel.

MOT 133 - Basic Medical Sciences II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the cardiovascular, respiratory, integumentary, and senses systems. The scope of the material is limited for the medical office technology personnel.

MOT 135 - Basic Medical Sciences III

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the renal, reproductive, neurological, and endocrine systems. The scope of material is limited for the medical office technology personnel.

Semester 2 - Spring

HPR 119 - Computers in Healthcare

Credit(s): 2

Lecture Hour(s): 2

Introduces basic computer technology, file management, and PC system components as used in Health Care settings. Provides an overview of word processing, spreadsheets, and personal information management software. Introduces the Electronic Health Record (EHR), its content, EHR software, EHR management, patient management and scheduling, and privacy and security of the EHR.

MAP 120 - Medical Office Financial Management

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Covers the practical uses of accounts and records with emphasis on accounting principles and analysis for use in a medical office. This course introduces outpatient coding with an ultimate goal to present a clear picture of medical procedures and services performed, such as Current Procedural Terminology (CPT) codes, correlating the diagnosis, symptom, complaint or condition, and International Classifications of Diseases (ICD) codes, thus establishing the medical necessity required for third-party reimbursement.

MAP 138 - Medical Assisting Laboratory

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the student to basic routine laboratory skills and techniques for collection, handling and examination of laboratory specimens often encountered in the ambulatory care setting.

MAP 140 - Medical Assisting Clinical Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Provides hands-on experience with clinical skills required in medical offices. Delivers theory and skills presentations allowing for students to properly demonstrate techniques for a variety of medical needs.

MAP 150 - Pharmacology for Medical Assistants

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Provides an overview of pharmacology language, abbreviations, systems of measurement and conversions. The Controlled Substances Act, prescriptions, forms of medications, patient care applications, drug classifications/interactions, and safety in drug therapy and patient care are presented. Information regarding the measurement of medications, dosage calculations, routes of administration and commonly prescribed drugs in the medical office is provided.

Semester 3 - Summer

HPR 108 - Dietary Nutrition

Credit(s): 1

Lecture Hour(s): 1

Studies the basic nutritional principles in clinical practice in health care. The course will cover factors which influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states.

MAP 183 - Medical Assistant Internship

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Department Chair Approval.

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. The student assists with a variety of business and clinical procedures. Positions are nonpaid. Student must have permission by program coordinator to begin Internship.

MAP 189 - Review for Medical Assistant National Exam

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares the candidate sitting for the National Registration/Certification examination for Medical Assistant through review and practice. These examinations are given with the intent of evaluating the competency of entry-level practitioners in Medical Assisting, supporting quality care in the office or clinic.

Medical Assistant, AAS

CIP 51.0801

See list of Department Chairs on the Personnel page.

Career Opportunities

The Medical Assistant Program will prepare the student for a career in medical assisting. Medical assistants can work in a variety of settings – physician offices, outpatient facilities, urgent care centers and other ambulatory health care services. Medical assistants play a vital role in the success of a medical practice and play the role of a liaison between the physician and the patients.

Program Description

The Medical Assistant program will prepare the student to primarily work in the back office of a medical practice, along with teaching some basic front office duties. Students will be taught the clinical tasks of drawing blood, giving injections, performing lab tests, taking patient histories and measuring vital signs. The administrative tasks include scheduling appointments, coding medical information and bookkeeping. Students will serve an internship and prepare for a national certification exam to become a Registered Medical Assistant.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Enrollment in the program is limited. Students must apply for admission to the program prior to the deadline. Students will be notified in writing of conditional acceptance. Clinical sites used during the program require that you successfully complete a background check and drug screen. These need to be completed before final acceptance into the program. Students must also obtain CPR certification and immunization series within the first semester of the program.

Graduation Requirements:

Students must complete all credits and courses listed in the curriculum with a "C" grade or higher.

Total Credits: 61

Degree Requirements

General Education Requirements (15 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

or

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting

techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.

Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Arts and Humanities **Credit(s): 3**

Core Curriculum Requirements (40 Credits)

Semester 1 - Fall

HPR 106 - Law & Ethics for Health Professions

Credit(s): 2

Lecture Hour(s): 2

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

MOT 135 - Basic Medical Sciences III

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the renal, reproductive, neurological, and endocrine systems. The scope of material is limited for the medical office technology personnel.

MAP 110 - Medical Office Administration

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the administrative duties specifically used in medical offices.

MOT 125 - Basic Medical Sciences I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required.

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the immune, musculoskeletal, and digestive systems. A discussion of pediatric implications as they relate to clinical physiology will also be covered. The scope of the material is limited to the medical office technology personnel.

MOT 133 - Basic Medical Sciences II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the cardiovascular, respiratory, integumentary, and senses systems. The scope of the material is limited for the medical office technology personnel.

Semester 2 - Spring

HPR 119 - Computers in Healthcare

Credit(s): 2

Lecture Hour(s): 2

Introduces basic computer technology, file management, and PC system components as used in Health Care settings. Provides an overview of word processing, spreadsheets, and personal information management software. Introduces the Electronic Health Record (EHR), its content, EHR software, EHR management, patient management and scheduling, and privacy and security of the EHR.

MAP 120 - Medical Office Financial Management

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Covers the practical uses of accounts and records with emphasis on accounting principles and analysis for use in a medical office. This course introduces outpatient coding with an ultimate goal to present a clear picture of medical

procedures and services performed, such as Current Procedural Terminology (CPT) codes, correlating the diagnosis, symptom, complaint or condition, and International Classifications of Diseases (ICD) codes, thus establishing the medical necessity required for third-party reimbursement.

MAP 138 - Medical Assisting Laboratory

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the student to basic routine laboratory skills and techniques for collection, handling and examination of laboratory specimens often encountered in the ambulatory care setting.

MAP 140 - Medical Assisting Clinical Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Provides hands-on experience with clinical skills required in medical offices. Delivers theory and skills presentations allowing for students to properly demonstrate techniques for a variety of medical needs.

MAP 150 - Pharmacology for Medical Assistants

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Provides an overview of pharmacology language, abbreviations, systems of measurement and conversions. The Controlled Substances Act, prescriptions, forms of medications, patient care applications, drug classifications/interactions, and safety in drug therapy and patient care are presented. Information regarding the measurement of medications, dosage calculations, routes of administration and commonly prescribed drugs in the medical office is provided.

Semester 3 - Summer

HPR 108 - Dietary Nutrition

Credit(s): 1

Lecture Hour(s): 1

Studies the basic nutritional principles in clinical practice in health care. The course will cover factors which influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states.

MAP 183 - Medical Assistant Internship

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Department Chair Approval.

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. The student assists with a variety of business and clinical procedures. Positions are nonpaid. Student must have permission by program coordinator to begin Internship.

MAP 189 - Review for Medical Assistant National Exam

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares the candidate sitting for the National Registration/Certification examination for Medical Assistant through review and practice. These examinations are given with the intent of evaluating the competency of entry-level practitioners in Medical Assisting, supporting quality care in the office or clinic.

Electives (6 Credits)

- Select 3 from Arts and Humanities
- or
- Social & Behavioral Science

Medical Sonography, AAS

CIP 51.0910

See list of Department Chairs on the Personnel page.

Associate of Applied Science (AAS) Degree

Applicants to this program must possess a two-year health degree with direct patient care-responsibility or a bachelor's degree in any discipline from a regionally accredited institution.

Career Opportunities

The program prepares you for a career in medical sonography (ultrasound). After graduating from the program, you may take the America Registry of Diagnostic Medical Sonographers (ARDMS) national certification examinations in ultrasound. A Registered Ultrasound Technologist (ultrasonographer) specializes in ultrasound procedures that demonstrate anatomy and pathologies on medical film or electronic (PACS) systems. These images are, in turn, interpreted by radiologists and other physicians for the diagnosis and treatment of disease.

Program Description

DMS is a four-semester program.

The program teaches students to function as critical members of today's health care team. Students will learn and practice important critical thinking/problem-solving skills. Learning appropriate interpersonal and communication skills allows students to interact effectively with other health care team members, patients, and families.

We teach you to use highly complex medical imaging equipment, analyze acquired images for quality, assess patient condition and apply appropriate techniques of patient care and education. In addition to fostering your intellectual growth, we advise you to exercise good judgment, demonstrate a professional demeanor, display the highest moral and ethical standards and promote the safety of yourself and your patients.

This curriculum includes lab/clinical experience to gain competencies in the areas of ultrasound physics and instrumentation, ultrasound of the abdomen, OB/GYN, small parts and basic vascular sonography.

Total Credits: 68.5

Degree Requirements

General Education Requirements (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Any Arts & Humanities Classes **Credit(s): 3**

Prerequisite Requirements (12 Credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following

systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

DMS 101 - Introduction to Sonography

Credit(s): 2

Lecture Hour(s): 2

Provides an overview of sonography for students interested in the Diagnostic Medical Sonography program with an introduction to pulse-echo imaging, general sonography, cardiac sonography, vascular technology and typical career opportunities.

RTE 255 - Multiplanar Sectional Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Radiologic Technology student or imaging professional or permission of instructor.

Offers a course designed to increase knowledge in multiplanar/multimodality sectional anatomy for imaging professionals, radiologic technology students and other interested health care professionals. Correlative studies of line drawings, cadaverous photographs, MRI and CT images are thoroughly studied.

Core Curriculum Requirements (51.5 Credits)

Semester 1 – Fall (11.5 Credits)

DMS 221 - OB/GYN Ultrasound I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101.

Provides a systematic study of embryology to include development of the major organ systems, with correlation to sonographic imaging, at all stages of embryonic/fetal development and the surrounding environment and the ultimate mastery of the foundations of obstetric and gynecological sonography.

DMS 231 - Abdominal Ultrasound I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101.

Offers a systematic study of the abdomen to include the function and development of the major organ systems with correlation to sonographic imaging and the surrounding environment. The student will master the foundations of sectional anatomy and abdominal sonography.

DMS 241 - Ultrasound Physics I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101

Presents the theoretical and practical approach to understanding the fundamentals of ultrasound physics,

instrumentation, image characteristics, artifacts and bio-effects. The ergonomics of proper scanning techniques (setting up the cart, chair and room properly to avoid musculoskeletal injury) will also be presented.

DMS 244 - Ultrasound Scanning Lab

Credit(s): 3

Vocational Lab Hour(s): 6

Prerequisite(s): Program admission. Enrollment in a DMS Program.

Prepares the sonography student for ultrasound Internship with an emphasis on applied instrumentation, ergonomics and image optimization.

DMS 280 - Clinical Observation

Credit(s): 2.50

Internship Hour(s): 7.50

Prerequisite(s): BIO 201, BIO 202, RTE 255.

Corequisite(s): DMS 221, DMS 231, DMS 241 and DMS 244.

Prepares the beginning ultrasound student for clinical Internship under the direct supervision of a registered sonographer with a focus on introductory skills necessary for clinical Internship, to include instrumentation, scanning techniques and image evaluation. The student will spend seven hours per week at the clinical site for training in patient care and work efficiency in the clinical setting.

Semester 2 – Spring (14 Credits)

DMS 222 - OB/GYN Ultrasound II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 232, DMS 242, DMS 283.

Provides a systematic study of embryology to include development of the major organ systems, with correlation to sonographic imaging, at all stages of embryonic/fetal development and the surrounding environment and the ultimate mastery of the foundations of obstetric and gynecological sonography.

DMS 232 - Abdominal Ultrasound II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 241, DMS 281.

Corequisite(s): DMS 222, DMS 242, DMS 283.

Offers a systematic study of the gastrointestinal tract, pediatric abdomen, neonatal brain and transplanted organs. The student will review the necessary sterile technique preceding invasive and intraoperative procedures and will learn the applications of contrast agents in ultrasound. Other imaging techniques will be discussed, as well as the principles guiding the field of sonography. A mock registry examination will be administered to prepare the student for writing the national registry examination.

DMS 242 - Ultrasound Physics II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 282.

Corequisite(s): DMS 222, DMS 232, DMS 283.

Covers a detailed study of ultrasound physics and the application within the clinical setting. Manipulation of technique controls, basic mathematical concepts, various Doppler modalities, equipment artifacts, QC/QA procedures, 3D fundamentals and bio effects are covered. Note: The comprehensive final is in a registry review format.

DMS 281 - Clinical Internship I

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 244, DMS 280.

Offers the initial clinical course wherein the fundamental principles of abdominal, OB/GYN and ultrasound physics will be applied under the direct supervision of a registered sonographer. The mastery of the foundations of instrumentation, scanning techniques, and image evaluation in sectional planes in abdominal and OB/GYN sonography will be stressed.

Semester 3 – Summer (12 Credits)

DMS 205 - Small Parts Ultrasound

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 206, DMS 282.

Designed to teach specific knowledge of anatomy of the breast, thyroid, scrotum, prostate and the surrounding structures. The ability to identify pathology or to locate abnormalities is also an intricate part of the class.

DMS 206 - Vascular Ultrasound

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 205, DMS 282.

Covers basic positioning and scanning protocol of the vascular system. Review of the anatomy, hemodynamics and terminology unique to the vascular system with emphasis on the external carotid system, the upper and lower venous and arterial systems and the abdominal vasculature will be included.

DMS 282 - Clinical Internship II

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 281.

Offers continued clinical experience for the ultrasound student. Application of the small parts didactic lectures will be

applied and will include image evaluation and cross-sectional anatomy of the thyroid, breast and scrotum. The foundations of vascular anatomy, instrumentation, scanning techniques and image evaluation will be stressed. The student will spend 30 hours per week at the clinical site under the direct supervision of a registered sonographer.

Semester 4 – Fall (11 Credits)

DMS 283 - Clinical Internship III

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 282.

Continues clinical experience for the ultrasound student. Application of the topics covered in advanced didactic lectures to include an introduction to invasive procedures using ultrasound guidance. Sterile technique and standard precautions will be reviewed. The student will spend 30 hours per week at the clinical site under the direct supervision of a registered sonographer.

DMS 289 - Ultrasound Capstone

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): DMS 282.

Corequisite(s): DMS 283.

Prepares the sonography student to effectively search for a job and sit for the American Registry of Diagnostic Medical Sonographers examination in their specialty.

MS Office Applications Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 6

Certificate Requirements

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CIS 155 - PC Spreadsheet Concepts: (Software Package)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Exposes the student 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.

or

CIS 218 - Advanced PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 118 or Instructor approval.

Covers the advanced capabilities of a PC software applications suite. Emphasizes solving business problems by integrating data from all of the software applications that facilitate the production of useful information. Printed documents, reports, slides and forms are produced to communicate information.

Multi-Process Fast Track Certificate

See list of Department Chairs on the Personnel page.

This Welding certificate offers training in Shielded Metal Arc and Gas Tungsten Arc Welding. Become familiar with cutting processes used in the field. Students can take qualification exams at the end of the semester in various welding processes. This certificate is a fast track option. It can be completed in one semester. It is offered in the fall and spring semesters (and sometimes the summer semester).

Total Credits: 21

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

WEL 141 - Introduction to Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers welding in the 1F and 1G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel; adjusting parameters and operating equipment, utilizing the various filler materials for each process. Layout procedures will be introduced and practiced, along with welding safety, industry standard soft skills and AWS filler metal classification and selection. Basic math, measuring, computer skills and blueprint reading will be introduced.

WEL 142 - Basic Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 141.

Covers welding in the 2F and 2G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting parameters and operating equipment utilizing the various filler materials for each process. Layout procedures, safety, blueprint reading skills and weld symbol identification will be practiced during this course.

WEL 143 - Intermediate Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 142.

Covers welding in the 3FU and 3GU positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting operating parameters and operating equipment utilizing the various filler materials for each process. Basic metallurgy will be presented.

WEL 144 - Advanced Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 143.

Covers welding in the 4F and 4G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting operating parameters and operating equipment utilizing the various filler materials for each process. Resume writing and interview skills will be presented and practiced. Advanced blueprint reading will be focused on including study of complex print reading and weld symbols.

WEL 150 - AWS Qualification Testing

Credit(s): 1

Lecture Hour(s): 1

Provides students with the opportunity to complete a welding qualification test in accordance with an American Welding Society code or specification.

Networking Cyber Security, AAS

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 60

Degree Requirements

General Education Requirements (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

or

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

General Education Electives (9 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

Core Curriculum Requirements (35 Credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 136 - Guide to Disaster Recovery

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

CNG 258 - Digital Forensics

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): CNG 124.

Corequisite(s): CIS 220.

Exposes the student to the field of digital computer forensics and investigation. This class provides the student with

methods to properly conduct a digital forensics investigation including a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analyses.

Academic or Vocational Electives (10 Credits)

CNG 254 - Data Encryption

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Exposes the student to data encryption models. Examines the differences between data storage including Microsoft, Novell Netware and UNIX. Includes encryption and data transmission. Covers encryption over various networks including the Internet.

or

CNG 256 - Vulnerability Assessment I

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 220, CNG 124, and CNG 132.

Presents students with an introduction to vulnerability assessment. Vulnerability assessment skills are necessary to understand how companies address vulnerabilities in the business environment. Students gain a better understanding of how information technology security integrates into the corporate world and how a balance must be achieved between security and functionality.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

or

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

or

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

Networking Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 13

Certificate Requirements

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link

layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

Nursing Aide Mini-Certificate

CIP 51.3902

See list of Department Chairs on the Personnel page.

Career Opportunities

The Nurse Aide program prepares you to work as an entry-level bedside caregiver in health care facilities or home health care services. You can work in a variety of positions: nursing assistant, nurse aide, orderly or attendant.

Program Description

This program teaches you the basic skills and procedures needed to assist hospital clients, long-term care residents, and home health care clients with their daily living activities.

Program Requirements

Successful completion of any CCR course or qualifying placement score or exemption.

To succeed in this program, you must have a sincere concern for people, good physical and emotional health, an excellent attendance record, an ability to communicate effectively with other health care personnel, patients and their families, and a neat, well-groomed appearance.

Note: Clinical agencies used during the program require that you successfully complete a background check, drug screening, immunization series and CPR training; you must also carry malpractice insurance.

Graduation Requirements:

Successful completion of NUA 101, NUA 170, NUA 171, and NUA 102.

Colorado State Board
1560 Broadway Suite 1350
Denver, CO 80202:
Website

Total Credits: 6.5

Certificate Requirements

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

Nursing, LPN to ADN, AAS

CIP 51.3801

See list of Department Chairs on the Personnel page.

Program Description

The LPN-ADN program teaches you skills of direct patient care that you can apply in any healthcare setting. It offers theoretical and applied instruction in classrooms, simulated laboratories, and clinical settings. It integrates education in adult, gerontological, obstetric, pediatric, and psychiatric-mental health nursing. Your clinical learning will take place in diverse types of institutions.

The Nursing program has a selective and limited admission policy. The application is available online at Pueblo Community College Nursing from October 1 to November 15. All Nursing Division programs have essential functions to help you be successful in the program and career. Applicants must have a current Colorado LPN license. Accepted applicants will receive 21 PLA credits. **No in progress grades will be accepted.**

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Total Credits: 71.5

First (11 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication,

personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

Second (11 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Third (4 credits)

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

Spring (9.5 credits)

NUR 189 - Transition from LPN to ADN

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 1.50

Prerequisite(s): Admission to Nursing program.

Facilitates transition of the LPN to new roles and responsibilities of the ADN, the nursing process, critical thinking, legal and ethical issues in nursing practice, and the nursing care of childbearing families and pediatric clients.

Application of knowledge and skills occurs in the laboratory and maternal/child and pediatric clinical settings.

NUR 206 - Advanced Concepts of Medical-Surgical Nursing I

Credit(s): 6.50

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of the program director.

NUR 206 builds on NUR 106 focusing on advanced concepts of nursing applied to care of patients with high acuity medical/surgical conditions. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in a variety of healthcare settings. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of clinical settings.

Summer (6 credits)

NUR 211 - Psychiatric-Mental Health Nursing

Credit(s): 4

Lecture Hour(s): 2.70

Voc/Tech Clinic Hour(s): 3.90

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of program director.

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 psychiatric clinical conditions/disorders.

NUR 212 - Pharmacology II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing program and successful completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 211 or permission of the program director.

Builds on previously introduced pharmacological concepts and applies that learning to pharmacologic therapy to

provide safe, quality, evidence-based nursing care to patients with complex healthcare needs. Focuses on safety and quality improvement factors in the administration of medications within a variety of healthcare systems. Advanced dosage calculations included.

Fall (9 credits)

NUR 216 - Advanced Concepts of Medical Surgical Nursing II

Credit(s): 5

Lecture Hour(s): 2.30

Voc/Tech Clinic Hour(s): 8.10

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 206 and NUR 212 or permission of the program director.

Nursing 216 is a continuation of Nursing 206, focusing on complex medical/surgical conditions of the high acuity patient. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients experiencing high acuity medical/surgical conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of knowledge and skills occurs in a variety of clinical settings.

NUR 230 - Transition to Professional Nursing Practice

Credit(s): 4

Lecture Hour(s): 1.60

Voc/Tech Clinic Hour(s): 7.20

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 216 or permission of the program director.

Nursing 230 is a Seminar and practice Capstone course that provides an integrative experience applying all dimensions of the professional nurse in the care of diverse patient populations across a variety of healthcare settings. All major concepts of the nursing program are addressed. Leadership and the management of multiple patients are emphasized. Application of knowledge and skills occurs in the clinical setting to facilitate an effective transition from student to registered professional nurse.

Other Information

¹ AAA 109, Advanced Academic Achievement may be substituted with a guaranteed transfer course, Humanities, or Social Science if student has more than 15 college credits.

² Course must be completed within 10 years of entrance into the program.

Occupational Therapy Assistant, AAS

CIP 51.0803

See list of Department Chairs on the Personnel page.

Career Opportunities

The OTA Program prepares you for a career in helping others improve their quality of life. You will use rehabilitative activities and exercises to help clients of all ages overcome physical, emotional, mental and/or social challenges and maximize one's independence in their activities of daily living. You can work in hospitals, schools, mental health centers, skilled nursing facilities and in the community. PCC graduates hold positions throughout Colorado and in many different states. The US Department of Labor projects that this will be one of the fastest-growing careers in the foreseeable future.

Program Description

This program teaches you to work under the supervision of a registered occupational therapist to assess clients of all ages, design individual rehabilitative programs, create goals and help clients meet their goals while monitoring their progress.

The program consists of 18 months of academic preparation and 16 weeks of fieldwork prior to graduation. When you graduate from the program, you are eligible to take the national certification examination administered by the National Board for Certification in Occupational Therapy (NBCOT). In addition, Colorado requires licensure through the Colorado Department of Regulatory Agencies (DORA).

Program Requirements

Entrance Requirements:

The OTA program has a selective admissions policy due to a limited number of fieldwork sites. You must submit a completed application packet, available through the Health and Public Safety office or on the Pueblo Community College's OTA website (available Nov. 1-March 1). You must have completed all basic skills requirements to perform at a college level in Reading, Math and English. You must also have a cumulative 2.5 GPA in college courses or on high school transcripts if no college courses have been taken. In addition, you must have vision, hearing, tactile sensation, gross and fine motor strength and coordination, memory, critical thinking and interpersonal skills adequate to allow effective communication, ensure safety of self and others, document accurately, and provide effective assessment and treatment in order to meet facility standards.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for the NBCOT certification exam. Contact NBCOT at 301.990.7979 or www.nbcot.org for an Early Determination Review.

Total Credits: 69

Degree Requirements

Note: All courses other than OTA may be taken prior to admission to the program.

Semester 1 — Fall

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

or

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

OTA 100 - Introduction to Occupational Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission

Explores career options in occupational therapy through discussion, observation and participation. Identifies the need for areas of occupation and the differences between health, illness and wellness. Describes the history and philosophy of occupational therapy and the roles, responsibilities and relationships between other healthcare professionals.

Discusses ethical and legal implications of health care and explores basic sociological issues.

OTA 105 - Occupational Disruption and Activity Analysis

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): Admission into the OTA program.

Explores the diseases and aspects of health and wellness common to occupational therapy intervention and occupational disruption and gains insight to various treatment methods and techniques as well as applying activity/task analysis.

OTA 106 - Basic Occupational Therapy Frames of Reference and Documentation

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Develops the ability to identify the types of occupational therapy documentation and practice basic documentation skills. Identifies models of practice, frames of reference and occupational therapy theories, founders, underlying assumptions of the theories, and implications to occupational therapy practice and treatment interventions.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Semester 2 — Spring

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

or

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections,

introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

OTA 121 - Assessing Movement Through Occupation

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 105, BIO 106 or BIO 201

Provides communication strategies with clients and caregivers in an inter-professional setting. Students will demonstrate an understanding of how performance skills affect occupation and how assessments such as muscle movement, body mechanics, transfers, range of motion and manual muscle testing will influence rehabilitation.

OTA 122 - Origins of Occupation and Performance from the Neonate to Adulthood

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Explores the impact and influences of environment, community and various contexts of the client, focusing on a dynamic and ever changing occupational status through the influences of areas of occupation, contexts, performance patterns, client factors, performance skills, and activity demands from neonate through middle-age development.

OTA 125 - Basic Occupational Therapy Application to Mental Health

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 105, OTA 106, PSY 101 or PSY 102 or PSY 235

Identifies commonly seen signs and symptoms of mental illness that affect health and wellness and learn methods of screening and various occupational therapy techniques for the assessment and treatment of occupational disruption within a variety of contexts. A Level I Fieldwork experience is integrated within this course.

OTA 131 - Geriatric Concerns, Diseases and Treatment Techniques

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 105 and OTA 106.

Explores aging trends and the impact of context and environmental influences on the older individual, focusing on an ever-changing occupational status through the influences of client factors, activity demands, and performance skills and patterns. Identify geriatric diseases and conditions common to occupational therapy and discuss strategies and methods of intervention.

Semester 3 — Summer

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical

thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

OTA 181 - Geriatric Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 131.

Identifies and provides practical experience in commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods for treatment for the geriatric population from diverse backgrounds in an inter-professional setting. Students will demonstrate universal precautions and safety standards in a variety of situations.

OTA 217 - Occupational Therapy Rehabilitation Techniques

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 121

Examines and demonstrates various treatment interventions and techniques based on aspects of health and wellness and physical/cognitive/psychosocial occupational disruption. The course focuses on adaptive equipment, assistive devices, areas of occupation and specialized physical disability assessments.

Semester 4 — Fall

- Humanities **Credit(s): 3**
or
- Social Behavioral Science **Credit(s): 3**

OTA 182 - Physical Disabilities Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 218

Identify and provide practical experience with commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods of treatment intervention for conditions affecting adult clients from diverse backgrounds in collaboration with intra-professional and inter-professional team members.

OTA 183 - Pediatric Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Corequisite(s): OTA 221.

Provides the student with the practical experience necessary to identify commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods of treatment for the pediatric population from diverse backgrounds in collaboration with intra-professional and inter-professional team members.

OTA 216 - Physical Disabilities Neuro-Retraining

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 121.

Provides skills necessary to utilize the occupational therapy treatment planning process, including age-appropriate assessments, treatment interventions and discharge planning within a client-centered and inter-professional context.

OTA 218 - Occupational Therapy Application to Adult Physical Disabilities

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 121.

Provides students with the ability to identify commonly seen medical and orthopedic diseases and disabilities, aspects of health and wellness, and areas of occupational disruption. Students will learn treatment interventions within appropriate frames of reference through a variety of methodologies and will explore aspects of intervention including, but not limited to, splinting, transfers, positioning and communication techniques.

OTA 221 - Pediatric Concerns, Diseases, Disabilities, and Treatment

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 121 and OTA 122.

Explains the impact of environment, culture and community on the child. Focuses on an ever-changing occupational status through the influences of performance skills. Provides the skills necessary to identify commonly seen diseases and disabilities and treatment techniques used in pediatrics to promote health and wellness. Identifies occupational therapy evaluation/assessment techniques and methods of intervention within the context and environment of health care and the community.

OTA 235 - Professional Management for the OTA

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Provides the student with the basic management skills needed as an occupational therapy assistant as well as provides an understanding of effective job seeking skills, the role of the OTA in research, professional responsibilities and lifelong learning.

Semester 5 — Spring

*OTA 280 AND OTA 281 must be completed within 18 months of the didactic coursework.

OTA 278 - OTA Seminar

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 280 or OTA 281.

Provides the opportunity for discussion of Level II experiences and how to apply logical thinking, critical analysis and clinical reasoning strategies to future scenarios. Students will have discussions on continuing lifelong learning opportunities and professional responsibilities.

OTA 280 - Fieldwork in Occupational Therapy I

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): All OTA courses except OTA 278 and OTA 281.

Provides an 8-week, full-time (or an equal amount of hours completed through part-time rotation), supervised fieldwork to develop professional behaviors consistent with the profession's standards and ethics and apply previously learned academic knowledge as an occupational therapy team member. Students will gain experience in the application of occupational therapy treatment process from admission to discharge for clients from a variety of sociocultural backgrounds and age levels in the practice area of physical disabilities to promote health and wellness.

OTA 281 - Fieldwork in Occupational Therapy II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): All OTA courses except OTA 278 and OTA 280.

n), supervised fieldwork to develop professional behaviors consistent with the profession's standards and ethics and apply previously learned academic knowledge as an occupational therapy team member. Students will gain experience in the application of occupational therapy treatment process from admission to discharge for clients from a variety of sociocultural backgrounds and age levels in the practice area of behavioral/mental health, sensorimotor and/or developmental disabilities as well as promoting health and wellness.

Paramedic Option Certificate

CIP 51.0904

See list of Department Chairs on the Personnel page.

Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an emergency medical care provider at the EMT, EMT-Intermediate or Paramedic level. Career opportunities include providing patient care while working for an ambulance agency, fire service or hospital emergency room. Additional opportunities are in such areas as tactical EMS, critical care transport and ski patrol. If you graduate with an AAS degree you have additional opportunities in administration and management in the pre-hospital field.

Program Description

This program teaches you the knowledge and skills needed for scene management, emergency patient care and transport. This includes scene safety, patient assessment and treatment, medication administration, documentation and patient transport. Upon successful completion of the program, you may take the National Registry exam and, upon passing the exam, you may apply for Colorado State Certification at your level of training.

Program Requirements

Entrance Requirements:

To enroll in the EMT, EMT-Intermediate or Paramedic programs, you must be at least 18 years of age, have all current immunizations and be able to meet the requirements of the PCC EMS Common Functional Abilities Standard. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT certification, an EMT IV endorsement, successfully complete all prescreening examinations and prerequisites, and obtain department approval for enrollment into these programs.

The EMS Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-I99, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-I99. For more information on prerequisites and classes, please call the EMS Department.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen, immunization series and CPR training. Please check with a program advisor for any changes to admission requirements.

Total Credits: 49

Certificate Requirements

General Education Requirements (4 Credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

Core Curriculum Requirements

EMS 225 - Fundamentals of Paramedic Practice

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 226.

Introduces the paramedic student to the advanced practice of prehospital care. This course covers professional behavior, medical ethics, legal issues, patient assessment, therapeutic communication, clinical decision making, and basic and advanced airway management. This course discusses EMS 's role in the healthcare continuum, professional communication, patient care documentation, IV fluid therapy and resuscitation, and the application of evidence based medicine. A brief overview of human anatomy, physiology and pathophysiology is included.

EMS 226 - Fundamentals of Paramedic Practice - Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 225, or have successfully completed EMS 225.

Complete all pre-course screening requirements, including drug test and criminal background check. Instructor approval. Serves as the lab experience to coincide with EMS 225 topics.

EMS 227 - Paramedic Special Considerations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to concepts in assessing and meeting the emergency care needs of the neonate, pediatric, geriatric and special needs patient. This course focuses on epidemiology, pathophysiology, assessment and treatment of these patient groups. Common medical and traumatic presentations are addressed. Relevant psychosocial and ethno cultural concepts and legal and ethical implications are integrated throughout.

EMS 228 - Paramedic Special Considerations Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 227.

Teaches the skills necessary for the paramedic to effectively assess and treat neonatal, pediatric, geriatric and special needs patients utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Special Considerations.

EMS 229 - Paramedic Pharmacology

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 230.

Introduces the paramedic student to advanced emergency pharmacology, pharmacokinetics and pharmacodynamics. This course will include laws affecting the use and distribution of medications, medication dosing, clinical calculations, routes of administration and discussion of common medication classifications to include indications, contraindications and side effects.

EMS 230 - Paramedic Pharmacology Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 229, or have successfully completed EMS 229.

Teaches the skills necessary for the paramedic to safely and effectively administer emergency medications. Serves as the companion course to Paramedic Pharmacology.

EMS 231 - Paramedic Cardiology

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to cardiovascular emergencies and the care of patients presenting with cardiovascular emergencies. Topics will include assessment of the cardiovascular system, ECG acquisition and interpretation both single lead and 12 lead, pathophysiology of cardiovascular disease and treatments indicated for a given disease.

EMS 232 - Paramedic Cardiology Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 231.

Teaches the skills necessary for the paramedic to effectively assess and treat patients presenting with cardiovascular emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Cardiology.

EMS 233 - Paramedic Medical Emergencies

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 234.

Expands on the paramedic student's knowledge of medical emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan. This course will cover principles of epidemiology and pathophysiology related to common medical emergencies including: neurological, abdominal and gastrointestinal disorders, immunological, infectious diseases, endocrine disorders, psychiatric disorders, toxicological, respiratory, hematological, genitourinary, gynecological, nontraumatic musculoskeletal disorders and diseases of the eyes, ears, nose and throat.

EMS 234 - Paramedic Medical Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 233.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of medical emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Medical Emergencies.

EMS 235 - Paramedic Trauma Emergencies

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Expands on the paramedic student's knowledge of trauma emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan for an acutely injured patient. The course will provide an in depth evaluation of trauma to include: categorization of trauma patients, incidence of trauma, trauma systems, types of injury, trauma assessment, documentation in trauma, trauma scoring scales, trauma center designations and transfer of patients.

EMS 236 - Paramedic Trauma Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 235.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of traumatic emergencies utilizing skills and simulation scenarios. Serves as the companion lab course for Paramedic Trauma Emergencies.

EMS 237 - Paramedic Internship Preparatory

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): EMS 225, EMS 227, EMS 229, EMS 231, EMS 233, EMS 235

Reviews concepts and techniques used in the prehospital setting.

EMS 280 - Paramedic Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 237.

Provides the first course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a member of an ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

EMS 281 - Paramedic Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 280.

Provides the second course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a leader of the ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

Paramedic to Associate Degree Nursing

See list of Department Chairs on the Personnel page.

Program Description

The Paramedic to RN program teaches you skills of direct patient care that you can apply in any healthcare setting. It offers theoretical and applied instruction in classrooms, simulated laboratories, and clinical settings. The program integrates education in adult, gerontological, obstetric, pediatric, and psychiatric-mental health nursing. Your clinical learning will take place in diverse types of institutions.

The Nursing program has a selective and limited admission policy. The application is available online at Pueblo Community College Nursing from October 1 to November 15. All Health & Public Safety programs have essential functions to help you be successful in the program and career. Applicants must have two (2) years of Paramedic work experience. Eligible paramedics must have an unencumbered license. Accepted applicants will receive 21 PLA credits.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

The Paramedic-ADN program prepares you to provide safe, therapeutic, and competent nursing care in hospitals and other healthcare settings. You may also work as an entry-level patient-care manager.

Total Credits: 71.5

General Education and Program Prerequisites

First (8 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

Second (11 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Third (4 credits)

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

1 Courses must be complete or in progress (Fall Semester) to apply to the program

2 Course must be completed within 10 years of entrance into the Program

3 BIO 106 Basic Anatomy & Physiology plus one credit general education may be used as substitution for BIO 111 General College Biology I

Program Course Schedule

Spring (12.5 credits)

- NUR 175 - Paramedic to ADN Transition **Credit(s): 6**

NUR 206 - Advanced Concepts of Medical-Surgical Nursing I

Credit(s): 6.50

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of the program director.

NUR 206 builds on NUR 106 focusing on advanced concepts of nursing applied to care of patients with high acuity medical/surgical conditions. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in a variety of healthcare settings. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of clinical settings.

Summer (6 credits)

NUR 211 - Psychiatric-Mental Health Nursing

Credit(s): 4

Lecture Hour(s): 2.70

Voc/Tech Clinic Hour(s): 3.90

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of program director.

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 psychiatric clinical conditions/disorders.

NUR 212 - Pharmacology II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing program and successful completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 211 or permission of the program director.

Builds on previously introduced pharmacological concepts and applies that learning to pharmacologic therapy to provide safe, quality, evidence-based nursing care to patients with complex healthcare needs. Focuses on safety and quality improvement factors in the administration of medications within a variety of healthcare systems. Advanced dosage calculations included.

Fall (9 credits)

NUR 216 - Advanced Concepts of Medical Surgical Nursing II

Credit(s): 5

Lecture Hour(s): 2.30

Voc/Tech Clinic Hour(s): 8.10

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 206 and NUR 212 or permission of the program director.

Nursing 216 is a continuation of Nursing 206, focusing on complex medical/surgical conditions of the high acuity patient. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients experiencing high acuity medical/surgical conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of knowledge and skills occurs in a variety of clinical settings.

NUR 230 - Transition to Professional Nursing Practice

Credit(s): 4

Lecture Hour(s): 1.60

Voc/Tech Clinic Hour(s): 7.20

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 216 or permission of the program director.

Nursing 230 is a Seminar and practice Capstone course that provides an integrative experience applying all dimensions of the professional nurse in the care of diverse patient populations across a variety of healthcare settings. All major concepts of the nursing program are addressed. Leadership and the management of multiple patients are emphasized. Application of knowledge and skills occurs in the clinical setting to facilitate an effective transition from student to registered professional nurse.

Pharmacy Technician Certificate

CIP 51.0805

See list of Department Chairs on the Personnel page.

Career Opportunities

This program prepares you to work in a pharmacy setting under the supervision of a licensed pharmacist, performing activities that do not require the professional judgment of a pharmacist. The Colorado Department of Labor and employment estimates pharmacy technicians earn from \$28,301 to \$40,222, with a mean annual salary of \$36,248.

Program Description

This certificate program is offered in one semester (four courses). It provides instruction in basic pharmacy theories and is an important step toward national certification as a pharmacy technician. Learning experiences include lecture, lab and clinical exposure in local pharmacies. To ensure success in this class, you should have a good knowledge of basic algebra and math formulas.

Program Requirements

Entrance Requirements:

Students must apply for admission to the program (through the program coordinator or the administrative assistant for the Health and Public Safety Division). Students are conditionally accepted into the program on a first-come, first-served basis. Students must pass a background check and drug screen to be admitted into the program. Additional requirements must be met prior to placement in a clinical setting. Applications are available May 1 with a deadline for submission of July 15 for the following fall semester. Pharmacy technician certificate will not be offered during the spring semester.

Total Credits: 34

Fall (19 credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

PHT 111 - Orientation to Pharmacy

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission required.

Orients students to the work of pharmacy technicians and the context in which a technician's work is performed. Students learn the concept of pharmaceutical care and the technician's general role in its delivery. The development of new drug products is discussed as well as a variety of issues that touch on attitudes, value and beliefs of success for pharmacy technicians. Students gain an appreciation for the value of obtaining technician certification and the benefits of technicians' active involvement in local, state and national pharmacy organizations.

PHT 115 - Pharmacology I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to program

Presents the fundamentals of pharmacology, the pharmacokinetic phases, and the basic concepts of normal body function. This course examines diseases which impact the various body systems and the drugs used to treat such diseases, emphasizing disease state management and drug therapy.

PHT 235 - Pharmaceutical Calculations and Compounding Techniques

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Program admission required.

Develops the skills necessary for performing calculations in pharmacy practice and the compounding of sterile and nonsterile products. Includes a review of basic mathematical skills. Enables the student to solve problems involving calculations pertinent to the preparations of pharmaceuticals. These skills are put to practical use in the compounding portion of this course. Preparation of sterile products, parenteral admixtures, TPN solutions and chemotherapeutics, using proper aseptic techniques is taught. The safe handling of antineoplastics and other hazardous drug products, as well as special drug storage requirements, is learned. Emphasizes the importance of accuracy, quality and infection control. Use and maintenance of equipment such as laminar flow hoods, auto injectors and pumps is discussed.

Spring (15 credits)

PHT 117 - Communication and Professionalism for Pharmacy Technicians

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to program

Provides fundamental components of theoretical and applied aspects of personal and interpersonal communication related to pharmacy practice. Theoretical aspects include such topics as communication perceptions and barriers, listening, responding, assertiveness and non-verbal communication. Applied aspects include such techniques as role-playing, group discussion and interviewing. This course also examines the methods and practice of interviewing with respect to the roles and functions of both interviewee and interviewer.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

PHT 114 - Computer Skills for Pharmacy Technicians

Credit(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Admission to program.

Introduces 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. This course includes integration of an actual pharmacy operation application to allow hands-on technical experience.

PHT 118 - Pharmacology II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to program

Examines the disease states which impact the various body systems and the drugs used to treat such diseases. This course emphasizes disease state management and drug therapy. Serves as the second part of the two-part presentation of the basic concepts of pharmacology.

PHT 112 - Pharmacy Law and Ethics

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to program.

Introduces 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.

PHT 170 - Pharmacy Clinical: Institutional

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Admission to program

Provides the students with 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. The preceptor, student, and instructor complete evaluations at completion of the rotation.

PHT 171 - Pharmacy Clinical: Community

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Admission to program

Provides the students with hands on experience in a community 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, inventory handling and control, drug distribution, processing of third-party claims, and communication with patients. The preceptor, student, and instructor complete evaluations at the completion of the rotation.

Philosophy, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Philosophy prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) degree in Philosophy. Students who opt for the Bachelor of Arts in Philosophy can choose to work in several occupational fields, including law, government, business, science, clergy, teaching and academia. Once a BA is completed, students may pursue a higher or graduate degree in Philosophy, if interested.

Program Description

This program introduces the student to the field of Philosophy and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Philosophy. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Philosophy will be ready to complete the last half of a BA in Philosophy at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT-MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. At least one of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH1, GT-AH2, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Philosophy Courses (15 Credits)

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C– grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

Choose Two Courses from the Following: (6 Credits)

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 218 - Environmental Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Critically analyzes theories of value of the natural world. Topics include the relation between scientific and moral principles; theories of the moral worth of persons, animals, plants and other natural objects; historical, religious and cultural influences on conceptions of nature; alternative accounts of human relationships and responsibilities to nature, including deep ecology and eco-feminism; and the connection between moral and political values and economic policies. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 220 - Philosophy of-Death and Dying: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Explores the major philosophical questions surrounding death and dying: the metaphysical arguments for and against the existence of a soul and life after bodily death; the epistemological assessment of arguments for the soul and life after death; the ethical justifications taken on positions such as rational suicide and physician assisted suicide, as well as a focus on philosophy's existentialist contribution to questions about the meaning of life and the meaning of death. This course is one of the statewide Guaranteed Transfer courses. GT-AH3.

Electives (14 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Colorado State University-Fort Collins (B.A. Philosophy, General Philosophy concentration)
- Fort Lewis College (B.A. Philosophy)
- Metropolitan State University of Denver (B.A. Philosophy)
- University of Colorado, Boulder (B.A. Philosophy)
- University of Colorado, Colorado Springs (B.A. Philosophy)
- University of Colorado, Denver (B.A. Philosophy)
- University of Northern Colorado (B.A. Philosophy)

Phlebotomy Technician Mini-Certificate

CIP 51.1009

See list of Department Chairs on the Personnel page.

Program Description

Phlebotomy Technician (PHL) is a one-semester (three course) certificate program. Courses cover venipuncture, capillary puncture, quality control, infection control, safety procedures, and laboratory computer systems. You will participate in laboratory and clinical experiences to perfect blood drawing skills and prepare you for the workforce as a qualified phlebotomist. When you successfully complete this program, you are eligible to sit for the National Phlebotomy Registry Exam.

The PHL program has a selective admissions process. The program application and requirements are available in the Health & Public Safety office or at Pueblo Community College PHL May 1 to July 15 for Fall Semester start and November 1 to January 5 for Spring Semester start. All Health & Public Safety programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you to the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

Phlebotomy Technician work in doctor's offices, hospital and outpatient labs.

Total Credits: 10

Certificate Requirements

HPR 112 - Phlebotomy

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Program admission required.

Covers the duties associated with the practice of venipuncture, capillary puncture, and special collection procedures. This course provides experience with quality control, infection control, safety procedures, as well as laboratory

computer systems. Successful completion of this course, with an adequate number of blood draws, will constitute eligibility for application for a National Phlebotomy Registry Examination.

HPR 113 - Advanced Phlebotomy

Credit(s): 4

Lecture Hour(s): 2.50

Vocational Lab Hour(s): 2.25

Prerequisite(s): Program admission required.

Focuses on advanced phlebotomy skills including laboratory protocols, specimen processing and point of care documentation. This course provides opportunities for the student to master learned skills.

HPR 180 - Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Program admission and HPR 112

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 business location and with the direct guidance of the instructor.

Photovoltaic Panel Installation CER

Program Description

See list of Department Chairs on the Personnel page.

The Industrial Technology Maintenance (ITM) Program prepares students for entry level employment into career paths that include electronics technicians, electrical technicians, semiconductor manufacturing technicians, and field service technicians. The program provides the student with knowledge and essential skills in the complex electro-mechanical systems found in production facilities. The curriculum addresses digital electronics, print reading, motors and controls, programmable logic controllers, and mechanical components. The ITM Program also offers certificates in Solar installation and Green Energy Technologies associated with Industrial Installation and Maintenance.

Core Curriculum Requirements

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ENY 121 - Solar Photovoltaic Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Corequisite(s): ELT 106

Reinforces basic safety principles and provides detailed knowledge of photovoltaic components. Also covered is an overview of site analysis and special purpose tools. Upon successful conclusion of this course the student will be able to select proper components for a photovoltaic system based on regulatory codes and standards and individual component specifications.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ENY 165 - Solar Photovoltaic Field Lab Experience

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Department approval required

Onsite / hands-on training experience for students. Experiences include on-site installations, inspection tours, mock-roof training installations, industry association meetings, field experience workshops.

ELT 280 - Internship

Credit(s): 1-12

Internship Hour(s): 3-36

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 business location and with the direct guidance of the instructor.

ENY 132 - NABCEP Entry Level Prep Class

Credit(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required

Reviews the knowledge needed by the student to permit passing the NABCEP Entry level test. This is an overview class only and is not meant to be a replacement for the actual class.

Physical Therapist Assistant, AAS

CIP 51.0806

See list of Department Chairs on the Personnel page.

Career Opportunities

PTAs work under the direction of physical therapists, helping to manage conditions such as back and neck injuries, sprains/strains and fractures, arthritis, burns, amputations, strokes, multiple sclerosis, birth defects, injuries related to work and sports, and many other conditions. You will work in a broad range of settings, including hospitals, outpatient clinics, rehabilitation facilities, skilled nursing, extended care, sub-acute facilities, homes, schools, fitness centers and sports training facilities.

Program Description

The AAS degree prepares you to serve as a PTA within 5 semesters. The program is offered 2-2½ days per week except during the clinical experiences which occur in the third and fifth semester. Clinical experiences are scheduled for 40 hours per week and placement is typically anywhere in Southern Colorado. Learning experiences include lecture and interactive lab opportunities in a spacious lab with state-of-the-art equipment.

The Physical Therapist Assistant Program at Pueblo Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave, Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; email: accreditation@apta.org; website: <http://www.capteonline.org>. If needing to contact the program/institution directly, please call 719-549-3433 or email Margaret.Oreskovich@pueblocc.edu.

Students accepted into the PTA program must pass a background check and drug screen before being officially admitted into the program. The background check and drug screen must be repeated before the student begins the second year of the program. Students are responsible for all expenses associated with internships and must provide their own transportation to and from clinicals. Financial aid is available through the PCC Financial Aid Office. Additional scholarship and grant information will be posted on the PTA bulletin board as it becomes available.

Program Requirements

The PTA Program has a selective admissions policy. You must submit a PTA application that is available through the Health and Public Safety Division or the PTA website. General Education requirements include ENG 121, COM 115, PSY 101, HPR 138, BIO 201 and PHY 105. BIO 201 and PHY 105 must be completed before the application due date of May 25. All general education courses must be completed with a "C" or above and the applicant must have a minimum GPA of 2.50. Once in the program you must also have a health care provider CPR card to attend clinical experiences and you must provide proof of current immunizations and purchase liability insurance.

Note: Clinical sites used during the program require that you successfully complete a background check and drug screen. These need to be completed before final acceptance into the program.

Total Credits: 75

Degree Requirements

* **May** be completed prior to program admission

** **Must** be completed prior to program admission

Prerequisites

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Core Curriculum Requirements

Semester 1 — Fall

HPR 117 - Anatomical Kinesiology

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201

Studies the Anatomical Bases of Human Movement.

PTA 110 - Basic Patient Care in Physical Therapy

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): Program Admission or Department Chair Approval.

Examines the basic patient care skills for the healthcare practitioner. Enables the student to gain an understanding and demonstrate skills that include positioning, body mechanics, transfers, range of motion, palpation, vital signs, aseptic techniques, bandaging, intermittent venous compression, medical terminology, activities of daily living, wheelchair management, architectural barriers and gait training.

PTA 115 - Principles and Practices of Physical Therapy

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission or department chair approval.

Explores the history of the profession including definition, development and areas of practice. The role of the APTA,

the physical therapist assistant and the relationship between the physical therapist, PTA and other health care professionals are investigated. Includes current issues and trends including professionalism, ethics, quality assurance, communications and reimbursement issues such as Medicare, Medicaid, workers' compensation and commercial insurance.

PTA 131 - Professional Communications I

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program Admission.

Introduces students to oral and written professional communication in their field. Develops skills in verbal and nonverbal communication, conducting self-critiques and peer reviews, research of professional literature, medical documentation and professional presentations.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

Semester 2 — Spring

PTA 120 - Modalities in Physical Therapy

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 110.

Examines theory and principles of physical therapy modalities. Course includes therapeutic heat and cold, traction, massage and hydrotherapy.

PTA 135 - Principles of Electrical Stimulation

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Investigates the principles and application of electrical stimulation (ES) modalities currently used in physical therapy practice. Enables the student to understand the electrochemical and physiological effects of electrical stimulation and identify the various forms and applications of ES.

PTA 140 - Clinical Kinesiology

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): HPR 117, Program Admission.

Focuses on the science of human motion, theories of biomechanics and muscle/joint structure and function. Emphasizes

basic principles of therapeutic exercise and their application to specific body regions. A laboratory experience that includes the application of kinesiology and exercise principles is integrated in the learning experience.

PTA 141 - Professional Communications II

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): PTA 131.

Builds on PTA 131 - Professional Communications I and develops skills in writing professional documents to patients and other healthcare professionals, participating effectively in meetings, and medical documentation skills.

PTA 124 - Rehab Principles of Medical I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program Admissions.

Investigates the impairments, functional limitations and disabilities resulting from a variety of neuromusculoskeletal conditions. The medical management including pharmacology and its impact on physical therapy rehab principles are discussed. Evidence-based practice for musculoskeletal and neurological system diagnosis will be reviewed as they relate to physical therapy rehab.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

Semester 3 — Summer

PTA 134 - Rehab Principles of Medical II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program Admissions.

Investigates the impairments, functional limitations, disabilities and medical management including pharmacology of a variety of traumatic, immunological, inflammatory and degenerative processes and their impact on physical therapy rehab principles. Evidence-based practice for cardiovascular, respiratory, endocrine and chronic pain diagnosis will be reviewed as they relate to physical therapy rehab.

PTA 280 - PTA Internship I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): PTA 120, PTA 140

Focuses on initial clinical exposure providing hands on patient practicum skills and techniques. Includes application of basic patient care skills including transfers, range of motion, modalities, bandaging, aseptic techniques and gait training. Students demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, geriatric or outpatient setting will provide supervision.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Semester 4 — Fall

PTA 205 - Psychosocial Issues in Health Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission.

Explores the psychosocial aspects of the patient/client and health care practitioner. Investigates recognition of and adjustment for psychological, sociological, educational, cultural, economic and political concerns on the delivery of health care services. Communication skills and social and advocacy responsibilities of the health care practitioner are discussed. Enables the student to develop the skills to meet expectations and needs of members of society receiving health care services.

PTA 230 - Orthopedic Assessment and Management Techniques

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 120, PTA 140.

Examines the theory and principles and practices of orthopedic conditions. Includes an understanding of assessment and management techniques pertaining to orthopedic conditions, goniometry, manual muscle testing, gait analysis and posture analysis.

PTA 240 - Neurologic Assessment and Management Techniques

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 120 and PTA 140

Examines the theory and principles of physical therapy with an introduction to assessment, management techniques and advanced physical therapy procedures as they relate to neurologic, cardiac and pulmonary conditions.

PTA 251 - Professional Communications III

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): PTA 141.

Promotes the concepts from PTA 141 - Professional Communications II and further develops written and oral communication skills in the professional arena through correct documentation of patient progress based on observations, dictating progress notes, development of resume, job interview skills, portfolios and an awareness of the national PTA exam.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Semester 5 — Spring

PTA 278 - PTA Seminar

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Successful completion of all previous PTA courses, department approval required

Provides a summary of all coursework, Internships and prepares the student for transition into the workforce as an entry level PTA. It includes a comprehensive review and mock exam in preparation for the national PTA exam, employment benefits, licensing, state practice act review, professional development, employment opportunities and community service.

PTA 281 - PTA Internship II

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Successful completion of all previous courses, department approval required

Focuses on an intermediate clinical experience providing hands-on patient practicum skills and techniques. Includes continued application of physical therapy procedures of Internship I with the addition of therapeutic exercise, goniometry, manual muscle testing and motor learning techniques. Students demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, rehabilitation, outpatient, geriatric or home health setting provides supervision. During the Internship, the student presents an in-service on a physical therapy-related topic.

PTA 282 - PTA Internship III

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Successful completion of all previous PTA courses, department approval required

Incorporates advanced clinical experience providing hands on patient practicum skills and techniques. Students will refine all physical therapy skills in preparation to enter the field as an entry-level physical therapist assistant. This final experience includes independent practice with an assigned caseload under the on-site supervision of a clinical instructor. The student will present an in-service on a physical therapy-related topic.

Police Science Certificate

CIP 43.0107

See list of Department Chairs on the Personnel page.

Career Opportunities

The Law Enforcement program prepares students for careers in law enforcement as a police officers, desk officer, bailiff or corrections officer. Additionally, students could work as criminal investigators, detectives, police agencies, or in correction and judicial facilities.

Program Description

The Law Enforcement program teaches students an in-depth analysis of the three (3) components of the criminal justice system (law enforcement, the judicial system and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills and empathetic awareness of cultural diversity.

Program Requirements

Entrance requirements:

Successful completion of any CCR course or qualifying placement score or exemption to complete the Criminal Justice courses. Admission into the Law Enforcement Academy courses requires a student to file an application with the PLEA Department Chair and meet specific guidelines prior to admission into the program (such as state statutory requirements for background checks). You may enroll in PLEA courses only if you are admitted into the program.

Graduation requirements:

In addition to program requirements for this program, you must complete ENG 121, COM 115, MAT 107 and six (6) credits of social and behavioral science courses.

Total Credits: 37

Certificate Requirements

LEA 101 - Basic Police Academy I

Credit(s): 6

Lecture Hour(s): 6

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.

LEA 102 - Basic Police Academy II

Credit(s): 12

Lecture Hour(s): 12

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge 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.

LEA 103 - Basic Law Enforcement Academy III

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Enhances the standards established by the POST board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a police officer. Emphasis will be on expanding the POST curriculum to create a unique learning experience.

LEA 105 - Basic Law

Credit(s): 8

Lecture Hour(s): 8

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.

LEA 106 - Arrest Control Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 107 - Law Enforcement Driving

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 108 - Firearms

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

Political Science, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Political Science prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in political science. Students who opt for a bachelor's degree in political science may choose to work in federal, state and local governments, law, business, international organizations, nonprofit organizations, campaign management and polling, journalism, electoral politics, research or education. Once a BA is completed, students may pursue a higher or graduate degree in political science if interested.

Program Description

The Associate of Arts Degree with Designation in Political Science includes the course work to meet general education requirements that are common to all Colorado four-year institutions. The degree is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in political science. Completion of the AA degree completes the first two years of a bachelor's degree and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in political science.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with a designation in political science, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (32 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (3 Credits)

- Select from a GT Pathways Mathematics course (GT-MA1), prefer MAT 135 *

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1) *

Arts and Humanities (6 Credits)

Select two GT Pathway courses from any category

- (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Political Science Courses (12 Credits)

POS 105 - Introduction to Political Science: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and nondemocratic governments and processes, and international relations. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

- POS 205 - OFFERED ONLINE
- POS 225 - OFFERED ONLINE

Electives (16 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. History, Anthropology, & Political Science: Political Science)
- Colorado Mesa University (B.A. Political Science)
- Colorado State University-Fort Collins (B.A. Political Science)
- Colorado State University-Pueblo (B.A. Political Science; B.S. Political Science)
- Fort Lewis College (B.A. Political Science)
- Metropolitan State University of Denver (B.A. Political Science)
- University of Colorado, Boulder (B.A. Political Science)
- University of Colorado, Colorado Springs (B.A. Political Science)
- University of Colorado, Denver (B.A. Political Science)
- University of Northern Colorado (B.A. Political Science)
- Western State Colorado University (B.A. Politics & Government)

Practical Nursing Certificate

Offered only at PCC's Southwest Campus, Mancos

See list of Department Chairs on the Personnel page.

This is a limited-entry program. You must meet specific program entrance requirements in addition to the PCC admission requirements. Students must complete general education requirements with a "C" or higher (minimum GPA 2.5) to be admitted to the Practical Nurse program. Students who complete the departmental application process will have their qualifications reviewed by the program's admission committee.

General Education (7 credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

Core Requirements (36 credits)

Semester 1 - Spring (18 credits)

NUR 101 - Pharmacology Calculations

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Prepares nurse to provide safe, patient-centered nursing care related to dosage calculations within the respective scope of practice. This course introduces critical thinking applied to dosage calculations and communication used when interacting with patients and members of the healthcare team related to various aspects of safe administration of medications. Information technology used to document medications administered and patient technology used to deliver medications are also practiced.

NUR 102 - Alterations in Adult Health I

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to Practical Nurse Program.

Provides acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to diverse adult patients experiencing common health alterations requiring medical/surgical interventions. The course introduces Practical Nursing and incorporates the legal and ethical responsibilities of the Practical Nurse.

NUR 105 - Practical Nursing Arts and Skills

Credit(s): 6

Lecture Hour(s): 3

Vocational Lab Hour(s): 9

Prerequisite(s): Admission to Practical Nurse Program.

Employs basic nursing theory and applies that theory and theory from other co-requisite nursing courses to the performance of nursing skills. Communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care are applied to the care of patients across the lifespan with stable and predictable outcomes. The course applies guidelines related to the professional, legal, and ethical scope of practice of the Practical Nurse, including demonstrating safe performance of all psychomotor skills.

NUR 110 - Pharmacology Practical Nursing

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to Practical Nurse Program.

Categorizes basic principles of pharmacology, including major drug classifications using prototype drugs, principles of medication administration including best practices for safe, quality, and patient-centered care. Discusses the legal and ethical responsibilities of the Practical Nurse related to medication administration. Application of this content is used throughout the program nursing courses.

NUR 170 - Clinical I

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Practical Nursing Program.

Offers the clinical practicum to apply the related nursing theory.

NUR 171 - Clinical II

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing Program.

Offers the clinical practicum to apply the related nursing theory.

Semester 2 - Fall (18 credits)

NUR 104 - Alterations in Adult Health II

Credit(s): 5

Lecture Hour(s): 4.50

Vocational Lab Hour(s): 1.50

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Apply and expand the knowledge and skills learned in Adult Health I to provide acquisition of basic nursing theory, communication, collaboration and critical thinking necessary for safe, patient-centered nursing care for diverse adult patients with conditions that are stable and predictable. The course focuses on care of patients experiencing common health alterations requiring medical/ surgical interventions. The course incorporates legal and ethical responsibilities of the Practical Nurse in the care of adults.

NUR 103 - Basic Assessment for the Pn

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Provides the theoretical knowledge and psychomotor skills used by the Practical Nurse performing a basic assessment of health status of stable adult patients with predictable outcomes, including collecting, reporting, and recording objective/subjective data, observing conditions or changes in condition, and differentiating normal from abnormal findings. Principles of therapeutic communication and patient teaching are included. Includes practice collecting basic assessment data in the nursing skills laboratory.

NUR 115 - Basic Concepts of Mental Health Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies knowledge of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to diverse patients at various levels of mental health promotion and mental illness management. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of patients with mental health issues.

NUR 111 - Advancement into Practical Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Demonstrates the roles and responsibilities of the Practical Nurse including scope of practice, supervision, assignment, and leadership skills. Emphasis on accountability, lifelong learning, perspectives in healthcare, and career and job readiness skills for entry level nursing practice.

NUR 113 - Basic Concepts of Maternal-Newborn Nursing

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies and expands the knowledge and skills learned in the previous and concurrent courses to provide the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to childbearing families. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of childbearing families.

NUR 114 - Basic Concepts of Pediatric Nursing

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies and expands on the knowledge and skills learned in the previous and concurrent courses to provide for the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to children and their families. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of children.

NUR 116 - Basic Concepts of Geriatric Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Applies and expands the knowledge and skills learned in the previous and concurrent courses to provide for the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to older adults. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of older adults.

NUR 172 - Clinical III

Credit(s): 3

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Offers the clinical practicum to apply the related nursing theory.

NUR 173 - Clinical III

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Offers the clinical practicum to apply the related nursing theory.

Pre-Engineering, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

Engineers apply mathematical principles and those of many sciences to the solution of practical design problems. Most engineers specialize in a particular area. There are more than 25 major specialties, including aerospace, chemical, mining and metallurgical, mechanical, architectural, electrical and systems. The Pueblo Community College curriculum provides a transferable foundation for all the major branches of engineering.

Program Description

The pre-engineering program at Pueblo Community College is designed for students interested in studying for the engineering profession through the community college pathway. This pathway prepares students for the completion of a two-year Associate of Science (AS) degree which meets the requirements of the statewide engineering articulation agreement with Colorado's four-year engineering bachelor's degree programs. Completion of the associate degree completes the first two years of an engineering bachelor's degree and guarantees transfer at the junior level.

Program Requirements

Refer to the general requirements for the Associate of Science degree listed above. Some pre-engineering courses have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for specific course prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (41 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Arts and Humanities (9 Credits)

(Select three courses, with no more than two courses from any one category):

- Arts and Expression: Select from a GT Pathways Arts and Expression course (GT-AH1) *
- Literature and Humanities: Select from a GT Pathways Literature and Humanities course (GT-AH2) *
- Ways of Thinking: Select from a GT Pathways Ways of Thinking course (GT-AH3) *
- Foreign Languages: Select from a GT Pathways Foreign Languages course (GT-AH4) *

Social and Behavioral Sciences (6 Credits)

(Select two courses from two different categories):

- Economics or Political Systems: Select from a GT Pathways Economics or Political Systems course (GT-SS1) *
- Geography: Select from a GT Pathways Geography course (GT-SS2) *
- Human Behavior, Culture, or Social Frameworks: Select from a GT Pathways Human Behavior, Culture, or Social Frameworks course (GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Guided Electives (22 Credits)

see an academic advisor

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

CAD 101 - Computer Aided Drafting/2D I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on basic computer aided drafting skills using the AutoCAD software. Includes file management, Cartesian coordinate system & dynamic input, drawing templates, drawing aids, linetype and lineweights, layer usage, drawing & editing geometric objects, polylines & splines, array, text applications, creating tables, basic dimensioning and Help access.

EGG 102 - Introduction to Engineering Methodologies

Credit(s): 3

Lecture Hour(s): 2

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121

Focuses on a variety of functions and the exploration of their graphs. Topics include: equations and inequalities, operations on functions, exponential and logarithmic functions, linear and non-linear systems, and an introduction to conic sections. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

HWE 111 - Health and Fitness

Credit(s): 3

Lecture Hour(s): 3

Studies health and fitness in the US today. The course will look at personal health issues, managing stress, nutrition and health lifestyles.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Production Technician Certificate

CIP 48.0503

See list of Department Chairs on the Personnel page.

CERTIFICATE IS UNDER REVIEW

Total Credits: 20

Certificate Requirements

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

MTE 105 - Safety Manufacturing Environment

Credit(s): 1

Lecture Hour(s): 1

Introduces Occupational Safety and Health Administration (OSHA) federal and state regulations, industrial practices, and accident investigation techniques; including topics such as hazard communication standards, lockout/tagout

procedures, eye safety, lifting techniques, electrical safety, stored energy safety, Personal Protective Equipment (PPE), and safety program development and monitoring.

MTE 110 - Applied Communication and Teamwork in Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the student with an in-depth focus on the fundamental concepts and approaches required by industry to establish strong comprehensive and recognized skills in the areas of critical thinking, emotional intelligence, team dynamics, leadership roles, conflict resolution and results-oriented communication skills. This course is taught from a contextualized format.

MTE 120 - Manufacturing Processes

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the different methods, tools, and machines which are used to manufacture industrial and consumer products.

MTE 175-177 - Special Topics

Credit(s): 0-12

Provides student with a vehicle to pursue in-depth exploration of a special topic of interest.

Professional Communication Certificate

Dr. Jeffrey Alexander, Dean of Arts and Sciences

See list of Department Chairs on the Personnel page.

Career Opportunities

The Certificate of Professional Communication program prepares students for careers in management, human resources, nonprofit organizations, marketing, public relations and recruitment, as well as workplace advancement.

Program Description

The Certificate of Professional Communication program teaches students to write and speak to diverse publics, engage in critical thinking and problem-solving, work as part of a team and employ one-on-one conflict resolution strategies. The curriculum is designed to sharpen students' verbal and written communication abilities for the best practices of being part of a 21st-century workplace.

Disclaimer

The Certificate of Professional Communication will not appear as a certificate on official college transcripts. Courses taken toward the Certificate may apply to other programs on a degree-by-degree basis.

Program Requirements

Entrance Requirements:

Placement into ENG 121 **or** successful completion of any CCR course with a grade of "C"/"S" **or** higher.

Graduation Requirements:

Successful completion of COM 289 - Capstone.

Total Credits: 17

Certificate Requirements

Core Requirements (17 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations.

Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

or

COM 262 - Communicating with Impossible People

Credit(s): 1

Lecture Hour(s): 1

Introduces participants to the concepts regarding communication with "impossible" people and techniques to deal with them more effectively. Emphasizes active participation in skill-building activities.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 268 - Problem Solving

Credit(s): 1

Lecture Hour(s): 1

Focuses on solving problems in our personal and professional lives and developing the ability to think and act creatively in responding to a variety of situations. Introduces several different perspectives for group and individual problem solving and explores real situations and simulations.

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

COM 289 - Capstone

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Must Have nine credits completed with a grade of "C" or higher towards the Certificate of Professional Communication or approval of the English & communication Department Chair.

Provides a demonstrated culmination of learning within a given program of study.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Programming Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 11

Certificate Requirements

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

Psychiatric Technician Certificate

CIP 51.1502

See list of Department Chairs on the Personnel page.

Program Description

This program teaches you to use basic patient care and psychiatric principles to interact with and care for clients in a therapeutic manner and monitor treatment modalities. You will learn to perform basic nursing skills, administer medications, conduct one-to-one relationship development, and participate in group therapy.

The Psychiatric Technician program has a selective admissions process. The program application and requirements are available in the Nursing office or at Pueblo Community College Psych Tech from January 1 – August 15. All Nursing Division Programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

The Psychiatric Technician Certificate Program provides you with knowledge and skills for employment as a psychiatric caregiver in health settings.

Total Credits: 34.5

Summer - 7

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students

in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

¹ Courses must be successfully completed to continue with the program

² Course must be completed within 7 years of a possible start

Fall - 15.5

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

PTE 110 - Intro to Behavioral Health Care and Wellness

Credit(s): 3

Lecture Hour(s): 3

Explores basic principles of behavioral health and wellness care in behavioral health settings. This course develops interpersonal and technical skills while working with clients in psychiatric care settings.

PTE 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

PTE 111 - Essential Concepts of Care

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program admission required

Identifies core concepts including role, function, and critical thinking skills needed in psychiatry. Examines medications and treatments for common and special mental disorders population. Enables the student to understand mental illness as a continuum.

PTE 115 - Core Concepts for Advanced Psychiatric Technician

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program admission required.

Introduces the concepts of nursing process, critical thinking, function, role, and responsibility of a psychiatric technician. Reviews medication administration, parenteral administration, and drug calculation.

Spring - 12

PTE 120 - Application of Behavioral Health Care & Wellness

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): PTE 110

Explores basic etiology, symptoms, and interventions for common behavioral and mental health disorders. Provides the opportunity for students to experience the milieu of a behavioral health care setting while providing basic care to clients experiencing common behavioral and mental health issues.

PTE 117 - Theoretical Concepts of Psychiatric Care II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): PTE 110

Explores psychiatric problems common to four (4) special populations: children/adolescents, developmentally disabled individuals, aging persons and forensic clients. The student will learn how to recognize and intervene with problems common to these four groups.

PTE 118 - Psychiatric Management Principles

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 117, PTE 171.

Corequisite(s): PTE 172.

Capstone: Explores principles of psychiatric unit management and professional behaviors in psychiatric care. Self-care issues and job-seeking skills are also discussed.

PTE 171 - Clinical Concepts of Psychiatric Care II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 116 , PTE 170 , or permission of instructor.

Corequisite(s): PTE 117.

Provides clinical application of theory and principles presented in PTE 117 through supervised clinical practice in a psychiatric care setting.

PTE 172 - Psychiatric Management Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 170 , PTE 171.

Corequisite(s): PTE 118.

Synthesizes knowledge from prerequisite courses and provides clinical application of theory presented in PTE 118.

Psychology, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Psychology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in psychology. Much of the coursework for BA and BS degrees in psychology tends to overlap (for example, social science requirements and core courses), but those with a BA degree are geared toward more modern scientific psychology – how we adapt to rapidly changing social and physical environments. Students who opt for the Bachelor of Arts in Psychology can choose to work in the human services field (crisis intervention or case management) or in business areas (human resources, personnel or management). Once a BA is completed, students may pursue a higher degree in psychology, if interested.

Program Description

This program introduces the student to the field of psychology and includes the coursework to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of psychology. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Psychology will be ready to complete the last half of a BA in Psychology at a four-year institution.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA degree with a designation in psychology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (34-36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT C03 course

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1), prefer MAT 135 - Introduction to Statistics: GT-MA1, except:

Colorado Mesa University

- Colorado Mesa University requires either MAT 120; or MAT 121;

Colorado State University-Pueblo

- Colorado State University-Pueblo prefers MAT 121;

Fort Lewis College

- Fort Lewis college requires MAT 135;

University of Colorado Boulder

- University of Colorado Boulder requires MAT 121 or higher;

University of Colorado, Colorado Springs

- University of Colorado, Colorado Springs requires MAT 121;

Western State Colorado University

- Western State Colorado University requires MAT 121

Natural and Physical Sciences (7-8 Credits)

- One GT Pathways Biology course. Must be GT-SC1 course with lab
- One GT Pathways GT-SC1 course of the student's choosing.

Arts and Humanities (9 Credits)

No more than two courses from any one category

- Select three GT Pathways Arts & Humanities Courses (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- (Select two GT Pathways Social & Behavioral Science courses (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathway course (GT-HI1) *

Additional Required Psychology Courses (18 Credits)

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Three GT Pathways Psychology courses (GT-SS3) **Credits(s): 9 ***

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Electives (6-8 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Psychology; Developmental, Clinical, Sport Psychology, or Psychology emphasis)
- Colorado Mesa University (B.A. Psychology; Psychology or Counseling Psychology concentrations)
- Colorado State University-Pueblo (B.A. Psychology)
- Fort Lewis College (B.A. Psychology)
- Metropolitan State University of Denver (B.A. Psychology)
- University of Colorado, Boulder (B.A. Psychology)
- University of Colorado, Colorado Springs (B.A. Psychology)
- University of Colorado, Denver (B.A. Psychology)
- University of Northern Colorado (B.A. Psychology)
- Western State Colorado University (B.A. Psychology)

Psychology, AS (with Designation)

CIP 24.0199

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Science Degree with Designation in Psychology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Science degree (BS) in psychology. Much of the coursework for BA and BS degrees in psychology tends to overlap (for example, social science requirements and core courses), but BS degree graduates have a higher skill concentration in math, natural sciences and research methods. Students who opt for the Bachelor of Science in Psychology can find work with medical doctors, forensic psychologists, neuropsychologists and biologists. After a BS is completed, students may pursue a higher degree in psychology, if interested.

Program Description

This program introduces the student to the field of psychology and includes the coursework to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of psychology. Upon transfer, students from Pueblo Community College who have earned the Associate of Science (AS) Degree with Designation in Psychology will be ready to complete the last half of a BS in Psychology at a four-year institution.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AS degree with a designation in psychology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (38 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

- ENG 121 - English Composition I: GT-CO1 **Credit(s): 3**
or
- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing course (GT-CO3) *

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (10 Credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

Arts and Humanities (9 Credits)

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.
or

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

- (Plus six (6) additional credits from at least two different categories of GT Pathways Arts & Humanities courses: (GT-AH1, GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathway courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History course (GT-HI1) *

Additional Required Courses (9 Credits)

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Electives (13 Credits)

Determined by transferring institution

Transfer Degrees

Note: Students planning to transfer to University of Colorado Denver should complete both two-semester sequences of BIO 111 & BIO 112 and CHE 111 & CHE 112 at the community college; in addition, electives are restricted to non-Psychology courses.

This degree transfers to the following Colorado public four-year institutions of higher education:

- Colorado State University-Fort Collins (B.S. Psychology: General Psychology concentration)
- Colorado State University-Pueblo (B.S. Psychology)
- University of Colorado, Denver (B.S. Psychology)

Public Health, Dwd

See list of Department Chairs on the Personnel page.

Total Credits: 62

Fall-Year 1 (15)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping,

research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

Spring-Year 1 (17)

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

Fall-Year 2 (14)

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Spring-Year 2 (16)

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 240 - Health Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the scientific study of attitudes, behaviors, and personality variables related to health, illness, and bodily systems. The course emphasizes the interaction of biological, psychological, and social factors that cause illness and influence its treatment and prevention. This is a statewide Guaranteed Transfer course in the GT-SS3 category. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 205 - Sociology of Family Dynamics: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles. This course is one of statewide Guaranteed Transfer courses, GT-SS3.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

Radiologic Technology BAS

See list of Department Chairs on the Personnel page.

Applicants must meet the following criteria:

- AAS in Radiologic Technology from a regionally accredited institution in radiologic technology
- Registered Radiologic Technologists with American Registry of Radiologic Technologist (AART) in good standing
- Minimum cumulative GPA of 2.00 (C) for all course work completed
- College transfer courses accepted for program entry require a cumulative GPA of 2.00 (C) on a 4.00 scale in related course work
- Meet PCC admissions criteria

Program Requirements:

The Bachelor's in applied Science Degree consists of 120 credit hours with transfer of AAS and general education courses.

BAS general education credits need to total a minimum of 30 credits

RTE AAS transcripts will be evaluated—credit amount will vary depending on the awarding institution

Students can receive prior learning credits for current registries

Additional 300/400 level courses earned through PCC

Any remaining credit hour can be earned through electives if necessary

Graduation Requirements

Students can use a combination of transcripted credits, prior learning assessment, current registry/certificates and additional bachelor level course work at Pueblo Community College to obtain the 120 credits required.

A minimum of 30 credits must be completed at PCC.

Students must complete all courses in their chosen track (MRI or CT) and all general education courses with a grade of C or better.

Internship Requirements

Documentation of current license

Evidence of current CPR

Evidence of professional liability insurance

Documentation of immunizations

Successful background check

Meet requirements of receiving institution

Total Credits: 120

Fall Semester (12 credits)

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Spring Semester (14 credits)

MRI Tract

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 321 - Theory and Application of MR Imaging I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental principles of MRI in order to perform clinical MRI examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

CT Tract

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 341 - Theory and Application of CT Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental and advanced principles of Computed Tomography (CT) in order to perform clinical CT examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

RTE 351 - CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Covers the skill and knowledge necessary to perform supplemental procedures for imaging various anatomical structures including the head, spine, chest, abdomen, pelvis and extremities utilizing Computed Tomography. It provides instruction on gross pathological conditions demonstrated on CT images.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

Summer Semester (8 credits)

MRI Tract

RTE 431 - Advanced MRI Protocols and Procedures

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): RTE 331.

Examines specialized advancements in MRI. Emphasis will be placed on the heart and vasculature, functional imaging, contrast agents and their uses, enterography, pelvic run-off and breast imaging.

RTE 381 - Internship: MRI I

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in MR imaging exams. The Internship allows the student to gain clinical experience and develop proficiency in MRI.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

CT Tract

RTE 451 - Advanced CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 351.

Provides the skill and knowledge necessary to perform advanced specialty procedures for imaging various anatomical structures utilizing Computed Tomography. It distinguishes vascular anatomy and incorporates contrast media injections and contraindication into complex imaging studies.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

RTE 382 - Internship: CT I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in Computed Tomography exams. The Internship allows the student to gain clinical experience and develop proficiency in CT.

Fall Semester (13 credits)

MRI Tract

RTE 421 - Theory and Application of MR Imaging II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 321.

Examines in-depth knowledge of designing MRI pulse sequences, data manipulation, artifacts and quality control and quality assurance procedures. Special consideration will be given to methods to shorten scan time, k-space filling and reconstruction, Fast Fourier Transform and image transfer and storage systems used in healthcare facilities.

RTE 431 - Advanced MRI Protocols and Procedures

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): RTE 331.

Examines specialized advancements in MRI. Emphasis will be placed on the heart and vasculature, functional imaging, contrast agents and their uses, enterography, pelvic run-off and breast imaging.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

RTE 481 - Internship: MRI II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 381.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in MRI.

CT Tract

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

OR

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting,

taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

RTE 482 - Internship: CT II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 382.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in CT.

Miscellaneous Information

¹ One credit elective course to be used if additional course work is required for applicant

² Students are required to complete either HPR 411 Leadership & Management in Health Professions **OR** HPR 468 Pedagogy in Health Professions

³ Offered in the first eight (8) weeks

⁴ Offered in the second eight (8) weeks

Radiologic Technology, AAS

CIP 51.0911

See list of Department Chairs on the Personnel page.

Career Opportunities

The Radiologic Technology program prepares you for a career in radiologic technology (radiography). As a graduate of the program, you are eligible to take the American Registry of Radiologic Technologists (ARRT) national certification examination in radiography. You will specialize in radiographic procedures that demonstrate anatomy and pathologies on medical x-ray film, fluoroscopic screens and other electronic imaging devices. These images are, in turn, interpreted by radiologists and other physicians for the diagnosis and treatment of disease and injury.

Program Description

The AAS in Radiologic Technology prepares you to work as a critical member of today's health care team. We teach you important critical thinking/problem-solving techniques as well as interpersonal and communication skills that allow you to interact effectively with other health care team members, patients and families from a variety of professional, social, emotional, cultural and intellectual backgrounds. We provide you with the skills you need to work with highly complex medical imaging equipment, analyze acquired images for quality, assess patient condition and apply appropriate techniques of patient care and education, and achieve the highest degree of clinical competency. The program focuses on developing your intellectual abilities as well as the judgment you need to demonstrate a professional attitude and demeanor, display the highest moral and ethical standards, and foster the safety of yourself and your patients.

Program Requirements

Entrance Requirements:

Prerequisite Requirements: ENG 121, BIO 106, MAT 107, RTE 101, HPR 138

Graduation Requirements:

PSY 235, Arts/Humanities. In addition, students must complete all required Clinical Competencies.

Total Credits: 77

Degree Requirements

* Indicates prerequisite courses for program entry.

General Education Requirements (16 Credits)

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

or

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Arts/Humanities **Credit(s): 3**
- or**
- Social and Behavioral Science **Credit(s): 3**

Related Requirements (3 Credits)

RTE 101 - Introduction to Radiography

Credit(s): 2

Lecture Hour(s): 2

Introduces radiology including equipment, exposure, positioning and the knowledge necessary for the radiography student to provide safe patient care including communication skills, body mechanics, patient transfer, and radiography as a profession.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

Core Curriculum Requirements (58 Credits)

Semester 1 – Fall

RTE 111 - Radiographic Patient Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 101.

Corequisite(s): RTE 121, RTE 131, RTE 141, RTE 181.

Introduces the fundamentals of human diversity; and legal and ethical considerations. Includes lecture and laboratory experience in patient care, standard and transmission based precautions, asepsis versus non-asepsis, vital signs, venipuncture, medical emergencies, drug administration, patients with specific needs and end-of-life interactions.

RTE 121 - Radiologic Procedures I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): RTE 101

Introduces the fundamentals of radiographic equipment to safely obtain radiographs, apply radiation safety techniques, and identify related positioning terminology. This course emphasizes identification of anatomy, common pathology, and radiographic terminology of the upper extremities, chest, and abdomen.

RTE 131 - Radiographic Pathology and Image Evaluation I

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): RTE 101.

Provides a detailed anatomic discussion of the respiratory, digestive, genitourinary systems and related medical terminology. The course will also cover the details of bony anatomy including bone structure, pathology and arthrology.

RTE 141 - Radiographic Equipment/Imaging I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission, RTE 101.

Introduces the fundamental aspects of radiographic equipment including the basic concepts pertaining to x-ray production, x-ray equipment, and photon interactions with matter.

RTE 181 - Radiographic Internship I

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Program admission, RTE 101.

Introduces the clinical education experience at the clinical education center. The student applies knowledge learned in the classroom to the actual practice of radiography. Introduces the clinical education experience at the healthcare facility. The course focuses on the application of knowledge to the actual practice of radiography.

Semester 2 – Spring

RTE 122 - Radiologic Procedures II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): RTE 121.

Reinforces the fundamentals of radiographic positioning of the extremities. This course introduces anatomy, pathology, and skills necessary to perform radiographic procedures of the spine, bony thorax, and abdominopelvic region.

RTE 132 - Radiographic Pathology and Image Evaluation II

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): RTE 131.

Provides a detailed anatomic/pathologic discussion of the spine, circulatory system, nervous system and skull and related medical terminology.

RTE 142 - Radiographic Equipment/Imaging II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): RTE 141.

Provides in-depth knowledge of scatter control, radiographic exposure technique, image acquisition, process, and fluoroscopy. Includes criteria and factors that affect image quality, quality assurance and healthcare informatics.

RTE 182 - Radiographic Internship II

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): RTE 181.

Builds upon prior clinical Internship experience to advance student proficiency in the practice of radiography in the healthcare facility. The course focuses on the application of knowledge to the actual practice of radiography.

Semester 3 – Summer

RTE 183 - Radiographic Internship III

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 182.

Reinforces and builds independence in the clinical Internship experience. Applies radiographic knowledge learned in the classroom and prior clinical Internship experience.

Semester 4 – Fall

RTE 221 - Advanced Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): RTE 122.

Introduces advanced imaging techniques including radiography of the cranium, facial bones and special radiographic procedures. These concepts are combined with the basic oral communication techniques necessary for the professional radiographer.

RTE 231 - Radiation Biology/Protection

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 142.

Provides the basic knowledge and understanding of the biologic effects of ionizing radiation and radiation protection and safety.

RTE 281 - Radiographic Internship IV

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): RTE 183.

Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the outpatient clinic, as well as increasing proficiency in general radiography.

Semester 5 – Spring

RTE 282 - Radiographic Internship V

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): RTE 281

Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the outpatient clinic, portable and trauma radiography, as well as increasing proficiency in general radiography.

RTE 289 - Capstone

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): All core curriculum or permission of instructor.

Corequisite(s): RTE 282.

Prepares the radiology technology student to effectively search for a job in radiography and sit for the American Registry of Radiologic Technologists examination.

Respiratory Therapy, AAS

Program Description

See list of Department Chairs on the Personnel page.

This program prepares you for a rewarding profession that will help treat patients of all age groups with heart and lung conditions. You will learn the diagnosis and management of diseases associated with cardiopulmonary illness. To be successful in this field you must have a high degree of maturity, strong drive, a solid science background, and excellent reasoning skills.

The Respiratory Therapy (RCA) program has a selective admissions process. The program application and requirements are available in the Health & Public Safety Office or at Pueblo Community College RCA from now—June 1. All Health & Public Safety programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

Career Information

The RCA program prepares you for a career in respiratory therapy. Respiratory therapists work in a variety of settings: hospital, homecare, neonatal nursery, diagnostic testing, and flight for life. Respiratory care is one of fastest growing health professions in the U.S. We provide our graduates with a listing of national placement opportunities.

Total Credits: 72.5

General Education Requirements (20 Credits)

Applicants must have 6 of the 7 prerequisites completed at the time of application with a "C" or higher, before first fall program semester.

Fall (9 credits)

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

Spring (11 credits)

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

OR

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum Requirements (52.5 Credits)

First Fall (10 credits)

RCA 105 - Introduction to Respiratory Care

Credit(s): 1

Lecture Hour(s): 1

Introduces the principles and practices of Respiratory Therapy, to include the study of: the profession's history, current and future roles of the respiratory therapist, working cohesively with other professional organizations, quality care and evidence-based practice, patient safety, effective communication with patients, patient health records, principles of infection control, and implications of legal and ethical practices.

RCA 131 - Basic Techniques in Respiratory Care

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Introduces the principles and practices of Respiratory Therapy; to include the study and application of infection control, conducting a patient centered interview, performing a cardiopulmonary physical assessment, identifying normal and abnormal structures on a thoracic radiograph, and the application of medical gases to the cardiopulmonary patient.

RCA 151 - Cardiopulmonary Anatomy and Physiology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Examines the cardiopulmonary anatomy and physiology related to respiratory therapy. This course also includes the study and analysis of the functional interrelationships between the pulmonary and cardiovascular systems.

RCA 156 - Application of Science in Respiratory Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

Applying the basic concepts of chemistry and physics in relation to the practices of Respiratory Therapy. Interpretation of laboratory data collected from an arterial and/or venous blood sample for identifying a patient's homeostasis with oxygenation and ventilation to maintain a normal acid-base balance. Applying an index of O₂ calculation to determine how gases are exchanged and transported from the atmosphere to the body for the assessment of the cardiopulmonary patient.

First Spring (13 credits)

RCA 132 - Basic Techniques in Respiratory Care II

Credit(s): 5

Lecture Hour(s): 3

Vocational Lab Hour(s): 3

Prerequisite(s): RCA 131, or consent of instructor.

Continues RCA 131 and focuses on airways, aerosol therapy, chest physiotherapy and positive pressure breathing.

RCA 153 - Cardiopulmonary Disease

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission.

Covers the pathological abnormalities and clinical manifestations associated with cardiopulmonary diseases. This course includes the study of patient assessment, treatment modalities, and management for both chronic and acute cardiopulmonary diseases.

RCA 166 - Monitoring and Diagnostics of the Cardiopulmonary Patient I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Provides the student an introduction to the monitoring and diagnostics for the cardiopulmonary patient, to include an analysis of the various clinical procedures, laboratory tests, and monitoring devices.

RCA 110 - Pharmacology of Respiratory Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department approval required

Introduces pharmacology associated with respiratory therapy, to include the study and application of prescribed medications for the indications, administration, adverse reactions and calculations; a study of specific topics include patient education of medication delivery devices, patient monitoring devices, utilization techniques, and the standards for therapeutic efficacy in relation to asthma, chronic obstructive pulmonary disease, and smoking cessation.

Summer (6.5 credits)

RCA 235 - Mechanical Ventilation I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required

Introduces the principles and practices of invasive and non-invasive mechanical ventilation, to include the study of respiratory failure and physiological effects of mechanical ventilation. This course covers the management of equipment for various types of mechanical ventilator systems.

RCA 270 - Clinical I

Credit(s): 4.5

Voc/Tech Clinic Hour(s): 13.5

Prerequisite(s): Department approval required.

Serves as the first patient care internship and focuses on the care and analysis of the noncritical patient. Includes procedures presented in RCA 131 and RCA 132.

Second Fall (11.5 credits)

RCA 271 - Clinical II

Credit(s): 7.5

Voc/Tech Clinic Hour(s): 22.5

Prerequisite(s): Department approval required.

Serves as the second patient care internship and focuses on the care and analysis of the critically ill patient. Rotations into specialty areas are carried out as the schedule permits.

RCA 236 - Mechanical Ventilation II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required. **Elaborates on the principles and practices of mechanical ventilation in high-risk situations, to include the study of ventilator graphics, management of patient asynchrony with ventilator support, and long-term mechanical ventilation.**

Elaborates on the principles and practices of mechanical ventilation in high-risk situations, to include the study of ventilator graphics, management of patient asynchrony with ventilator support, and long-term mechanical ventilation.

RCA 246 - Neonatal and Pediatric Respiratory Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Department approval required

Introduces the theory and principles of respiratory therapy unique to pediatric and neonatology. This course examines fetal development, prenatal and antenatal assessment, and high risk delivery. Including the analysis of anatomy and physiology, clinical assessment, therapeutic modalities, and cardiopulmonary disorders for neonatal and pediatric patients.

Second Spring (11.5 credits)

RCA 272 - Clinical III

Credit(s): 7.5

Voc/Tech Clinic Hour(s): 22.5

Prerequisite(s): Department approval required.

Offers the clinical practicum required for the program.

RCA 265 - Professional Development

Credit(s): 2

Lecture Hour(s): 2

Corequisite(s): RCA 283 or consent of instructor.

Reviews the respiratory therapy concepts, theory, and therapeutic applications covered within the program curriculum to prepare for the national credential examination, job placement, and state licensure requirements.

RCA 266 - Advanced Monitoring and Diagnostics of the Cardiopulmonary Patient II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Provides the student with an advanced opportunity for analysis and the monitoring and diagnosis of the cardiopulmonary patient, to include current medical diagnostic procedures, laboratory testing, and advance monitoring equipment.

Notes

¹ BIO 111 is a required prerequisite course for BIO 202

² Courses are required to be successfully completed or in progress during spring semester to apply to program

3 Courses must be completed within 5 years of entrance into the program

Respiratory Therapy, BAS

See list of Department Chairs on the Personnel page.

This program is designed for licensed and registered respiratory therapists who have completed an Associate Degree in Respiratory Therapy from an accredited (Commission on Accreditation for Respiratory Care; CoARC) program and wish to continue their education and obtain a Bachelor of Applied Science degree. Students will receive 5 to 25 Prior Learning Assessment (PLA) credits for Registered Respiratory Therapy (RRT) and current state licensure. This program provides a student centered on-line learning environment meant to enhance career opportunities. The students will engage in self-directed learning activities and gain specialized knowledge utilizing critical thinking, personal inquiry and reflective practice.

Admission Requirements:

Applicants must meet the following criteria:

- Graduated from an accredited respiratory care program (Commission on Accreditation of Respiratory Care (CoARC)
- Hold a current respiratory therapy license in any state
- Hold a current credential from the National Board of Respiratory Care (NBRC) as a Registered Respiratory Therapist (RRT)
- Have a cumulative GPA of 2.5 for Respiratory Therapy degree and all other required pre-requisite courses must be completed at a "C" level or better.
- Meet PCC admissions criteria

Program Requirements

- The Bachelor's in Applied Science Degree consists of 120 credit hours with the transfer of AAS and general studies courses.
- General studies courses take as AAS: (19 credit hours)
- RCA specific coursework taken as part of AAS in Colorado (54.5 credit hours)
- Additional 300/400 level courses earned through PCC (BAS RT – 28 credit hours)
- A total of 30 credits in general education between the AAS and BAS degree with a minimum of 15 credits in GT pathway designation. Including possible block transfer/Prior Learning Assessment (PLA) for Respiratory Therapy AAS degree, NBRC Registered Respiratory Therapist and current state licensure.
- Any remaining credit hours can be earned through electives if necessary.
- Transferring students from outside the CCCS system will have transcripts evaluated for meeting admissions requirements

Total Credits: 120

Respiratory Therapy-Degree Transfer Credits

Respiratory Therapy, AAS

General Education (12 credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Arts/Humanities GT Pathway course **Credit(s): 3**
- OR**
- Nature & Physical Sciences GT Pathway course **Credit(s): 3**

First Fall Semester (12 credits)

HPR 301 - Communications in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Develops professional written and oral communication plans to ensure effective patient-centered outcomes between health care professionals, patients and caregivers.

HPR 310 - Quality Improvement in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Introduces approaches to assessing risk and improving health care quality through the practice of Continuous Quality

Improvement (CQI). Course explores the conceptual framework for quality improvement, a focus on quality improvement as a strategy to manage cost, boost productivity, and enhance quality outcomes in various health care settings. The course will focus on both conceptual understanding and experiential learning.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

First Spring Semester (12 credits)

HPR 403 - Critical Review of Healthcare Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Teaches how to evaluate and analyze published literature using a scientific approach to develop medical best practices, formulates and research clinical questions to effectively participate in medical discussions.

RCA 401 - Sleep Medicine

Credit(s): 3

Lecture Hour(s): 3

Develops a working knowledge in sleep medicine for health care professionals by reviewing and identifying diagnostic procedures, therapeutic interventions, and sleep disorders.

RCA 402 - Advanced Concepts in Respiratory Therapy

Credit(s): 3

Lecture Hour(s): 3

Evaluates and analyzes current monitoring and diagnostic procedures for the cardiopulmonary patient in the acute and non-acute care settings with an emphasis on quality control, correlation of patient data, application of technology, and analysis of therapeutic protocols and procedures.

RCA 400 - Current Topics in Pulmonary Disease

Credit(s): 3

Lecture Hour(s): 3

Analyze current issues related to respiratory disease, including pathophysiology, management, and outcomes.

First Summer Semester - Elective (4 credits)

RCA 478 - Senior Seminar

Credit(s): 2

Lecture Hour(s): 2

Senior seminar for respiratory care creating a senior project that applies knowledge and concepts through the use of problem-based learning methods in the research and evaluation of industry best practices.

RCA 489 - Inter-Professional Capstone

Credit(s): 2

Lecture Hour(s): 2

Provides an opportunity to apply a working knowledge within an inter-professional team to encourage problem solving and communication regarding current health related issues. This course also provides the opportunity for effective collaboration to improve health outcomes for patients and industry.

RN to BSN

See list of Department Chairs on the Personnel page.

This program is designed for Registered Nurses who have completed an Associate Degree Nursing program at an accredited program (Accreditation Commission for Education in Nursing, (ACEN)) and successfully completed the National Council Licensure Examination (NCLEX). This program provides a student centered on-line learning environment meant to enhance career opportunities for RNs who wish to continue their education and obtain a Bachelors of Applied Science degree. Applicants will provide transcripts to be reviewed. A block of 71.5 credits will transfer to PCC—53.5 credits ADN AAS, 21 credits general education credits. BSN course credits—30.5. Applicants may need additional general education courses to complete the 120 required credits for the BSN. All courses are taught online in 8 week blocks.

Total Credits: 120

General Education (18 credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

ANT 107 - Introduction to Archaeology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. The course provides a survey of the archaeology of different areas of the Old and New Worlds, the works of selected archaeologists, and major archaeological theories. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Core Curriculum (24.5 credits)

NUR 301 - Integration into Baccalaureate Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Explores professional nursing practice at the baccalaureate level. Focus is on knowledge and understanding of the professional nursing standards and the nursing role at a baccalaureate level.

NUR 302 - Trends in Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Examines current issues that nurses encounter in the health care environment including their roles and responsibilities within the nursing profession.

NUR 303 - Nursing Research / Evidence Based Practice

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 135

Analyzes concepts associated with nursing research, collection, and analysis of data with emphasis on integration of evidenced-based practice within nursing. The course develops the skills for critiquing published research.

NUR 408 - Legal and Ethical Issues Related to Professional Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval.

Emphasizes the ethical and legal obligations of professional nursing practice. The focus is on values clarification, ethical theory, and ethical decision making models. Additionally, legal issues related to healthcare will be explored.

NUR 409 - Leadership in the Nursing Profession

Credit(s): 3.5

Lecture Hour(s): 3.5

Prerequisite(s): Program approval

Focuses on the role of the professional nurse as a leader within healthcare. The course integrates concepts needed to assume leadership and management positions in the healthcare environment.

NUR 410 - Community Health Nursing/Practicum

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): Program approval

Focuses on the role of the professional nurse in community-based practice settings, with an emphasis placed on health promotion, prevention, and optimal wellness of the community.

NUR 411 - Senior Seminar

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval.

Integrates theory into practice by building on previous concepts and knowledge.

Electives-must choose two (2) courses (9 credits)

NUR 304 - Informatics / Healthcare Technology

Credit(s): 3

Lecture Hour(s): 3

Explores concepts and applications related to the nurse's role in utilizing healthcare informatics involving patient care technology. This course will explore the impact of information management systems on the delivery of patient care, healthcare teams, and health outcomes.

NUR 305 - Emergency Preparedness

Credit(s): 3

Lecture Hour(s): 3

Focuses on the nurse's roles and responsibilities in the most common types of disasters and how the nurse can deliver effective care in various emergency situations.

NUR 306 - Gerontology Nursing

Credit(s): 3

Lecture Hour(s): 3

Focuses on optimizing health for the aging client within the framework of the nursing process. Emphasis is on supporting the unique needs of the aging population.

NUR 307 - Behavioral Health

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval

Provides an overview of behavioral health promotion for individuals, families, and populations with behavioral health concerns. The focus of the course will explore the nurse's impact on behavioral health trends.

Notes

¹ May be taken prior to acceptance into BSN program, must be completed during the first (1) semester of BSN program

² Can be taken concurrently with program courses

³ Additional guarantee transfer general education courses are listed in the catalog

⁴ Elective course

Secure Software Development BAS

Computer Information Systems

See list of Department Chairs on the Personnel page.

Bachelor of Applied Science -- Secure Software Development

120 Credit Hours

Total Credits: 120

General Education (30 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

- Natural and Physical Sciences
Choose one CCCS GT-SC1 **Credit(s): 4**

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

- Choose General Education Electives **Credit(s): 13**

Lower Division (51 credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The

concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CSC 129 - Introduction to Secure Coding

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 120

Focuses on introduction to secure coding. Emphasizes concepts, principles, and best practices of structured secure programs within security standards. Analysis of design of secure programming is stressed, including costs, threats, security concepts, policies, coding flaws, vulnerabilities, exploits, and code mitigation. Analysis of the design of legacy and contemporary object oriented languages is emphasized. Focuses on the application of secure coding principles, standards to resolve code flaws and vulnerabilities.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CSC 241 - Advanced Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 240 or instructor approval.

Continues the study of the Java programming language. Covers advanced programming topics including

multithreading, network/Internet programming, database programming and JavaBeans. Enables the student to write advanced, large and complex programs.

CSC 245 - Secure Software Development: (Language)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 161 OR Co-Requisite

Corequisite(s): CSC 161 or Pre-Requisite

Focuses on functionality when implementing security consequences with regard to formatted output and arithmetic operations in a program. The course introduces how to write a program that creates safe, reliable, and secure systems free from undefined program behaviors and exploitable vulnerabilities.

CSC 246 - Mobile App Development

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 119.

Learn how to develop mobile apps using key features and frameworks. Students will learn application design and development using a mobile development platform software development kit (SDK) and corresponding programming language. Main features include: handling UI triggered and touch events, data management, simple and complex UI views, drawing, location and application settings.

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

CWB 205 - Client-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the client-side programming skills necessary to create dynamic web content using a markup embeddable and procedural scripting language executed on the client web browser.

Upper Division (39 credits)

CSC 300 - Advanced Computer Architecture

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Covers the analysis of advanced concepts in the applications of computer architecture and programming capabilities

with keyboard and display controllers within programs. This course investigates the impact of exceptions and interrupts within a simulator, examines the hazards associated with a pipelined datapath, and uses the analysis of floating-point instructions.

CSC 320 - Software Engineering Fundamentals

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the skills necessary to analyze, design, and implement software engineering projects. The course includes software engineering standards and processes, qualitative aspects including maintainability, extensibility, reusability, and robustness in every stage of the software-engineering life-cycle.

CSC 322 - Security Fundamentals and Databases

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Examines the vulnerabilities of databases to attack. Functional requirements and security testing, focusing on the interaction between a software user and the application, are analyzed. This course will investigate database platforms and provide database developers with an understanding of database development best practices for optimum security.

CSC 324 - Secure Coding Vulnerabilities I

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and implementing software vulnerabilities. This course explores vulnerabilities through code evaluation and implementation of language-specific solutions.

CSC 326 - Secure Scripting of Operating Systems

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and configuring an environment and assessing configuration variables in multiple operating systems. Topics include using multiple utilities in order to assimilate information on a network, host and data communications, and creating scripts for evaluation.

CSC 328 - Security Libraries in Programming Languages

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the issues surrounding security libraries within programming languages. This course analyzes static typing

within a software program to assess integrity within a given programming library. The course will also explore what effect mutable resources have on security, along with encryption tools, and violation channels.

CSC 422 - Secure Software Engineering

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the analysis and functionality of defective software and how to develop and implement secure software. The analysis performed by software engineers in order to detect, repair, and maintain safe systems will also be covered.

CSC 424 - Secure Code Vulnerabilities II

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 324

Focuses on advanced implementation of software vulnerabilities. This course covers attack vectors frequently used by malicious actors such as email attachments, compromised "watering hole" websites, and other tools often relied on to take advantage of unpatched vulnerabilities found in widely-used software applications. Patching techniques will be deployed in order to repair vulnerabilities found in software components.

CSC 426 - Secure Cloud Programming

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and implementing secure applications in the cloud. Topics covered will include designing and implementing applications via the cloud with a focus on security policies, analyzing computer models with recommendations to reduce the risks and security challenges surrounding programming, and data security within the cloud.

CSC 428 - Software Security Testing

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on testing software as it pertains to vulnerabilities within operating systems, libraries, and cloud applications. Topics covered include implementing testing environments through analytical assessments using tools that detect software inefficiencies and using reliable solutions in order to reduce security risks.

Security Mini-Certificate

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computer science, computer networking and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section.

Total Credits: 15

Certificate Requirements

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

or

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 224 - Microsoft Windows Wireless Network

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

Social Work, AA (with Transfer Articulation Agreement)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts degree with an emphasis in Social Work prepares students to transfer as a junior to a four-year institution in order to earn a bachelor's degree in social work. Social workers are professionals who are specially trained to work with people to provide a variety of services to individuals, families, groups or even communities. Social workers are employed in many different settings including schools, corrections, victims programs, child welfare, nursing homes, foster care agencies, domestic violence shelters and homeless programs.

Program Description

This program introduces students to the field of social work and includes general education requirements as well as specific courses in the area of social work. The courses included in this program are part of an articulation agreement

with Colorado State University-Pueblo. Upon transfer to CSU-Pueblo, students who have earned the AA degree with an emphasis in social work will be ready to apply for admission to the social work program.

Program Requirements

Students interested in the field of social work should be aware that social workers must adhere to a strict code of ethics and values that are meant to protect the dignity and worth of clients and the profession. Social work students should be prepared to challenge their own attitudes, values and beliefs in order to be successful in the field.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathways Courses*

General Education Requirements (38 Credits)

Communication (9 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

Mathematics (3 Credits)

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Natural and Physical Sciences (8 Credits)

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

- Select one additional GT Pathways Natural and Physical Science course. The course must include a laboratory component (GT-SC1) *

Arts and Humanities (9 Credits)

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

- Select two additional GT Pathways courses from either Arts and Expression, Literature and Humanities, Ways of Thinking **or** Foreign Languages (GT-AH1, AH2, AH3, **or** AH4) *

Social and Behavioral Sciences (9 Credits)

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Electives (28 Credits)

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

ETH 224 - Introduction to Chicano Studies

Credit(s): 3

Lecture Hour(s): 3

Introduces students to skills development in multicultural education. Covers Chicano history, migration and labor, education, law and Chicano culture.

HWE 111 - Health and Fitness

Credit(s): 3

Lecture Hour(s): 3

Studies health and fitness in the US today. The course will look at personal health issues, managing stress, nutrition and health lifestyles.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SWK 100 - Introduction to Social Work

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the philosophy of the social work profession including the knowledge, values, ethics, roles and skills inherent to generalist social work.

SWK 201 - Human Behavior in the Social Environment I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of PSY 101 and SOC 101 .

Prerequisite(s)/Corequisite(s): SWK 100.

Focuses on the person in environment throughout the lifespan with an examination of the relationship between biological, psychological, social, spiritual and cultural systems.

SWK 202 - Human Behavior in the Social Environment II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SWK 201

Focus in this course is on an understanding and analysis of larger social systems which include the family, groups, communities and organizations. Emphasis on social systems as an organizing theoretical framework for understanding social functioning and change.

SWK 205 - Social Welfare in the United States

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): SWk 100 (concurrency allowed)

Prerequisite(s)/Corequisite(s): SWK 100.

Introduces students to the profession of social work and social welfare. Students will be presented with an historical and conceptual overview of the social welfare system in the United States. Attention is given to the milieu within which social, political, economic, racial and cultural forces have interacted in the evolution of social welfare.

WST 200 - Introduction to Women's Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature and function of women in society from an interdisciplinary perspective, focusing on the similarity and diversity of women`s experience over time and across cultures. The course will examine topics such as sex role, socialization, political and philosophical perspectives on women`s issues, and women`s accomplishments in history, art, literature, science, health issues and the family. Students will gain an awareness of the limitations of traditional scholarship on women and gain a means of practical application of the new scholarship on women`s roles and nature. This course is one of the statewide Guaranteed Transfer Courses, GT-SS3.

Sociology, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts Degree with Designation in Sociology prepares students to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts degree (BA) in sociology. Students who opt for a bachelor's degree in sociology may choose to work in the criminal justice system, business and industry, research and planning, agencies, government, education or advocacy. Once a BA is completed, students may pursue a higher or graduate degree in sociology if interested.

Program Description

The Associate of Arts Degree with Designation in Sociology includes the course work to meet general education requirements that are common to all Colorado four-year institutions. The degree is designed for students who want to transfer to a four-year college or university to pursue a bachelor's degree in sociology. Completion of the AA degree completes the first two years of a bachelor's degree and guarantees transfer at junior standing with no more than 60 remaining credits to meet the graduation requirements for a bachelor's degree in sociology.

Program Requirements

In addition to the requirements listed below, you must:

- a. Earn a minimum of 60 semester hours of course work
- b. Earn a minimum of 15 graded semester hours at PCC
- c. Earn a minimum of "C" in all coursework for the degree

Consult with a PCC Arts and Sciences advisor or transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer.

To earn an AA Degree with Designation in Sociology, you must complete at least 60 college-level credits, as described below:

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (35-36 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT C03 course

Mathematics (3-4 Credits)

- One GT Pathways course (GT-MA1), prefer MAT 135 - Introduction to Statistics: GT-MA1: except:

Adams State University

- Adams State University prefers MAT 121 - College Algebra: GT-MA1:

Colorado Mesa University

- Colorado Mesa University requires either MAT 120 - Mathematics for the Liberal Arts: GT-MA1 **or** MAT 121 - College Algebra: GT-MA1;

University of Colorado Denver

- University of Colorado Denver requires MAT 121 - College Algebra: GT-MA1 **or** MAT 123 - Finite Mathematics: GT-MA1 **or** MAT 135 - Introduction to Statistics: GT-MA1;

Western State Colorado University

- Western State Colorado University requires MAT 120 - Mathematics for the Liberal Arts: GT-MA1 **or** MAT 121 - College Algebra: GT-MA1

Natural and Physical Sciences (8 Credits)

- Select two GT Pathways Natural and Physical Sciences courses: GT-SC1 *

Arts and Humanities (9 Credits)

- Any three approved GT Pathways Arts & Humanities courses (GT-AH1, GT-AH2, GT-AH3, GT-AH4 *)

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral Sciences courses (GT-SS1, GT-SS2, GT-SS3 *)

History (3 Credits)

- Select one GT Pathways History course: GT-HI1 *

Additional Required Sociology Courses (18 Credits)

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

or

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

- Choose three additional GT Pathways SOC courses (GT-SS3) **Credit(s): 9 ***

Electives (6-7 Credits)

Determined by transferring institution

Transfer Degrees

This degree transfers to the following Colorado public four-year institutions of higher education:

- Adams State University (B.A. Sociology; Criminology or Social Welfare emphasis)
- Colorado Mesa University (B.A. Sociology; Sociology concentration)
- Colorado State University-Fort Collins (B.A. Sociology; General Sociology concentration)
- Colorado State University-Pueblo (BA Sociology; B.S. Sociology)
- Fort Lewis College (B.A. Sociology; Human Services-General option)
- Metropolitan State University of Denver (B.A. Sociology)

- University of Colorado, Boulder (B.A. Sociology)
- University of Colorado, Colorado Springs (B.A. Sociology)
- University of Colorado, Denver (B.A. Sociology)
- University of Northern Colorado (B.A. Sociology; all emphasis)
- Western State Colorado University (B.A. Sociology)

Software Development and Security AAS

CIP 11.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

This degree provides training so that graduates will be able to develop, create, and modify general computer applications software or specialized utility programs. They will be able to analyze user needs and develop software solutions.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming, and database technologies along with classes that teach the technical aspects of the internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section of this catalog.

Total Credits: 60

General Education Requirements (16 Credits)

Communications (3 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

Mathematics (4 Credits)

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

General Education Electives (9 Credits)

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CIS Core (15 Credits)

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 212 - Configuring Windows Server

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

Software Development and Security Core (29 Credits)

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CNG 131 - Principles of Information Assurance**Credit(s): 3****Lecture Hour(s): 2****Vocational Lab Hour(s): 1.50**

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

CSC 160 - Computer Science I: (Language)**Credit(s): 4****Lecture Hour(s): 3****Vocational Lab Hour(s): 1.50****Prerequisite(s):** CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)**Credit(s): 4****Lecture Hour(s): 3****Vocational Lab Hour(s): 1.50****Prerequisite(s):** CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CSC 241 - Advanced Java Programming**Credit(s): 3****Lecture Hour(s): 2****Vocational Lab Hour(s): 1.50****Prerequisite(s):** CSC 240 or instructor approval.

Continues the study of the Java programming language. Covers advanced programming topics including multithreading, network/Internet programming, database programming and JavaBeans. Enables the student to write advanced, large and complex programs.

CSC 246 - Mobile App Development**Credit(s): 3****Lecture Hour(s): 2****Vocational Lab Hour(s): 1.50****Prerequisite(s):** CSC 119.

Learn how to develop mobile apps using key features and frameworks. Students will learn application design and development using a mobile development platform software development kit (SDK) and corresponding programming language. Main features include: handling UI triggered and touch events, data management, simple and complex UI views, drawing, location and application settings.

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

CWB 205 - Client-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the client-side programming skills necessary to create dynamic web content using a markup embeddable and procedural scripting language executed on the client web browser.

Software Development Certificate

See list of Department Chairs on the Personnel page.

Career Opportunities

The CIS program prepares you for careers in computers science, computer networking, and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

Program Description

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree Section.

Total Credits: 28

Certificate Requirements

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CWB 205 - Client-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the client-side programming skills necessary to create dynamic web content using a markup embeddable and procedural scripting language executed on the client web browser.

CWB 208 - Web Application Development: (Development Tool(s))

Credit(s): 3

Vocational Lab Hour(s): 4.5

Teaches students how to work in the server-side scripting environment. Students learn the basics of application development, and general principles that apply to most development environments. Students develop applications using two different server-side application development tools: PHP Hypertext Preprocessor (PHP), and Cold Fusion. Students also learn key application standards such as source and revision control, coding standards, code optimization and data integrity.

CWB 209 - Web Content Management Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141

Explores the use of open source Content Management Systems (CMS) to simplify the creation and maintenance of web sites.

OR

CSC 246 - Mobile App Development

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 119.

Learn how to develop mobile apps using key features and frameworks. Students will learn application design and development using a mobile development platform software development kit (SDK) and corresponding programming language. Main features include: handling UI triggered and touch events, data management, simple and complex UI views, drawing, location and application settings.

SQL Coding Certificate (6 Credits)

See list of Department Chairs on the Personnel page.

The Structured Query Language (SQL) is the programming language that is used with most database applications. Knowledge of SQL gives the student opportunities in both database and programming jobs. Most modern businesses manage their data using a database and databases are found in almost every industry. This two course certificate introduces the student to the basics of both SQL and database design.

Total Credits: 6

Courses

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

Steering and Suspension/Brakes Mini-Certificate

CIP 47.0604

See list of Department Chairs on the Personnel page.

To enter the automotive collision or automotive service program, you must successfully complete any CCR course or qualifying placement score or exemption.

Entrance into the program involves a screening and selection process. You can obtain an application and information by calling the Automotive Department at 719.549.3354.

Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Automatic Transmissions & Transaxles, Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, Heating & Air Conditioning and Suspension & Steering. We also offer Automotive Services courses for students in the Concurrent Enrollment Program at Pueblo Community College, Cañon City High School, and PCC Southwest Campus in Mancos. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the Skills USA club and participate in a number of leadership activities and competitions.

Program Requirements

Entrance Requirements:

Admissions to the Automotive Service Technology program is by application only. For admission requirements, please go to MT-129 and see the department chair.

Total Credits: 13

Certificate Requirements

ASE 110 - Brakes I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Introduces the basic theory of automotive braking systems including operation, diagnosis, basic repair of disc and drum friction assemblies, and basic hydraulic braking systems. This course meets MLR/AST/MAST program accreditation requirements.

ASE 111 - Automotive Brake Service II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): ASE 110.

Covers diagnostics, test procedures, and repair to automotive foundation braking system. This course also introduces the components, types of Antilock Braking Systems (ABS), and traction control systems of current vehicles. This course meets MLR/AST/MAST program accreditation requirements.

ASE 140 - Suspension and Steering I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on diagnosis and service of suspension and steering systems and components. This course meets MLR/AST/MAST requirements.

ASE 141 - Suspension and Steering II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers design, diagnosis, inspection, service of suspension, and steering systems used on light trucks and automobiles including power steering and Supplemental Restraint System (SRS) service. This course meets AST/MAST requirements.

ASE 210 - Automotive Power and ABS Brake Systems

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of the modern automotive braking systems including the operation, diagnosis, service,

and repair of the anti-lock braking systems and power assist units. This course also covers the machining operations of today's automobile brake systems. This course meets AST/MAST requirements.

ASE 240 - Suspension and Steering III

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

ASE 282 - Internship: General (Summer)

Credit(s): 1

Internship Hour(s): 3

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

Structural Welder Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Program Description

Welders must be highly skilled and knowledgeable in a variety of welding processes to meet the challenges of advanced technology and new materials. Welding is not just a trade; it's a tool for many trades requiring a high level of training and technical knowledge. The Welding Technology program helps students develop skills through classroom studies and hands-on experience under close supervised instruction. Students learn about structural steel fabrication, layout work and pipe welding following detailed blueprints.

Total Credits: 21

Certificate Requirements

Core Requirements (21 Credits)

WEL 100 - Safety for Welders

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of welding on health and safety.

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

Structural Welding Intermediate Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 12

Certificate Requirements

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Structural Welding Introduction Mini-Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to be become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 12

Certificate Requirements

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

Studio Art, AA (with Designation)

CIP 24.0101

See list of Department Chairs on the Personnel page.

Career Opportunities

The Associate of Arts (AA) Degree with Designation in Art History prepares the student to transfer as a junior to a four-year institution in Colorado in order to pursue a Bachelor of Arts (BA) or Bachelor of Fine Arts (BFA) degree in Art or Studio Art. Students who opt for the Bachelor of Arts in Studio Art can choose to work in several occupational fields, including museums, galleries, commercial art, education, media, photography and academia. Once a BA or BFA is completed, students may pursue a higher or graduate degree in Art, if interested.

Program Description

This program introduces the student to the field of Studio Art and includes the course work to meet general education requirements that are common to all Colorado four-year institutions, as well a specific courses in various subfields of Studio Art. Upon transfer, students from Pueblo Community College who have earned the Associate of Arts (AA) Degree with Designation in Studio Art will be ready to complete the last half of a BA or BFA in Studio Art at a four-year institution.

Program Requirements

Refer to the course requirements listed below. Some courses may have prerequisites of lower level classes or assessment scores. Refer to the course descriptions for these prerequisites.

Total Credits: 60

** Refer to CCCS Guaranteed Transfer (GT) - Pathways Courses for a full list of all GT Pathway Courses*

General Education Core Requirements (31 Credits)

Written Communication (6 Credits)

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

or

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3 and** a GT Pathways Advanced Writing Course (GT-CO3) *

Mathematics (3 Credits)

- Select one GT Pathways Mathematics course (GT- MA1) *, prefer MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Natural and Physical Sciences (7 Credits)

- Select two GT Pathways Natural and Physical Sciences courses (GT-SC1, GT-SC2) *. At least one of these courses must include a laboratory component (GT-SC1) *

Arts and Humanities (6 Credits)

Note: Courses from the Arts and Expression category (GT-AH1) may not be used to meet this requirement

- Select two GT Pathways Arts and Humanities courses from any category (GT-AH2, GT-AH3, GT-AH4) *

Social and Behavioral Sciences (6 Credits)

- Select two GT Pathways Social and Behavioral courses from any category (GT-SS1, GT-SS2, GT-SS3) *

History (3 Credits)

- Select one GT Pathways History Course (GT-HI1) *

Additional Required Studio Art Courses (21 Credits)

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 121 - Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Investigates the various approaches and media that students need to develop drawing skills and visual perception.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 221 - Drawing II

Credit(s): 3

Art Studio Hour(s): 6

Explores expressive drawing techniques with an emphasis on formal composition, color media and content or thematic development.

or

ART 128 - Figure Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the basic techniques of drawing the human figure.

- Select one additional 3-credit Studio Art course **Credit(s): 3**

Electives (8 Credits)

Determined by transferring institution;

Note: Students planning to transfer to Colorado State University-Fort Collins will be required to complete two semesters of one foreign language for their electives, or be able to pass the CSU-FC foreign language placement exam for completion of the BA in Studio Art.

Transfer Degrees

This degree transfers to the following Colorado Public Four-Year institutions of higher education:

- Adams State University (B.A. Liberal Arts, Studio Art emphasis)
- Colorado Mesa University (B.F.A. Art, Studio Art concentration)
- Colorado State University-Ft. Collins (B.A. Art, Studio concentration)
- Colorado State University-Pueblo (B.A. Art)
- Fort Lewis College (B.A. Art, Art option)
- Metropolitan State University of Denver (B.A. Art)
- University of Colorado, Boulder (B.A. Studio Arts)
- University of Colorado, Colorado Springs (B.A. Visual and Performing Arts, Visual Art option)
- University of Colorado, Denver (B.A. Fine Arts, Studio Art emphasis)
- University of Northern Colorado (B.A. Art and Design, Art emphasis)
- Western State Colorado University (B.A. Art, Studio Art emphasis)

Surgical Technology, AAS

CIP 51.0909

See list of Department Chairs on the Personnel page.

Surgical Technology Associate of Applied Science

Program Description

The Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

The Surgical Technology program teaches students classroom and hands-on learning in surgical techniques, patient prep, and Operating Room (O.R.) prep. Students will learn how to create and maintain a sterile field. They will also learn how to scrub, gown, glove, drape, and use case management. Students will be taught hemostasis, how to use sutures, needles, stapling devices, and how to handle specimens. In addition, students will learn pharmacology and anesthesia, wound care, and use the principles of infection control. How to handle sharps, pass instruments and supplies during procedures will also be taught. Training will include how to perform surgical counts, room turnover and terminal cleaning processes. You will also learn to properly process and sterilize instruments. Finally, students will engage in extensive clinical work to gain experience working with surgeons and staff in a real O.R.

The Surgical Technology (STE) program has a selective admissions process. The program application and requirements are available in the Nursing Division office or at Pueblo Community College STE from January 1 to May 15. All Nursing Division programs have essential functions to help you be successful in the program and career.

Note: You must undergo a background check and drug screen before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for licensure exams.

BIO 106 Basic Anatomy and Physiology 4 credit class can be substituted with BIO 201 Human Anatomy and Physiology I, 4 credit course and BIO 202 Human Anatomy and Physiology II, 4 credit course if student has already successfully completed both of these classes. Students who have only completed BIO 201 may choose to take BIO 202 or BIO 106.

BIO 116 Introduction to Human Disease 3 credit course can be substituted with BIO 204 Microbiology 4 credit course.

Career Information.

A Surgical Technologist is a vital member of the operating room team and requires extensive commitment and special qualities for those who practice in this profession. A PCC Surgical Technology student will become prepared to immediately assume the wide range of entry-level responsibilities encompassed by the profession of Surgical Technology. Students will gain quality classroom and hands-on training for working in the field of Surgical Technology.

Total Credits: 63.5

Degree Requirements

First Fall - 15.5

STE 102 - Intro to Surgical Technology

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): Program Admittance

Introduces the principles and practices of surgical technology including standards of conduct, professional practice, communication, physical, psychological, social and spiritual needs of the surgical patient, death and dying, special populations, physical environment, safety standards, all-hazards preparedness, biomedical science, asepsis and sterile technique, hemostasis, emergency situations, surgical pharmacology and anesthesia, wound healing, sutures, needles, stapling devices and surgical instrumentation, equipment, and supplies. Perioperative technical skills of the surgical technologist will be demonstrated.

STE 103 - Introduction to Surgical Technology Lab

Credit(s): 4

Vocational Lab Hour(s): 8

Prerequisite(s): Program Admittance

Introduces hands-on skills in a mock operating room environment for the preoperative phase of surgical technology that includes scrubbing, gowning and gloving, assisting team members, creating and organizing a sterile field, setting up instrumentation on the mayo stand, surgical case management, operative routines, patient transport, patient positioning, prepping, and draping, as well as learning procedures for counting instruments, sponges, needles, sharps, and other items on the sterile field.

STE 133 - Surgical Instruments Lab I

Credit(s): 1.5

Vocational Lab Hour(s): 3

Prerequisite(s): Program admittance.

Introduces the history and materials used in the manufacture of surgical instruments, as well as the methods used to maintain, clean, and sterilize surgical instrumentation and equipment. Students will learn supplies, equipment, and the names, category, and use of instrumentation used in general, obstetric and gynecologic, otorhinolaryngology, oral, maxillofacial, plastic, reconstructive and ophthalmic surgical specialties. This course is the first of two courses.

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

First Spring - 14

STE 111 - Surgical Procedures and Case Management

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): STE 102

Identifies the anatomy, physiology, pathology, and terminology, as well as specific variations in the preoperative, intraoperative, and postoperative care related to general, obstetric, gynecologic, ophthalmic, otorhinolaryngologic, oral,

maxillary, plastic and reconstructive, genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neuro surgery. Focus will also be placed on diagnostic procedures and tests, operating room set-up according to the surgical procedure, patient positioning, prepping, and draping, instrumentation, equipment, supplies and drugs, procedural steps, purpose and expected outcomes and possible complications.

STE 151 - Surgical Procedures & Case Management Lab

Credit(s): 4.5

Vocational Lab Hour(s): 9

Prerequisite(s): STE 102, STE 103, STE 133

Introduces surgical case management and the skills required for the surgical technologist to perform in the first and second scrub role in a simulated surgical environment, as it relates to general, obstetric, gynecologic, ophthalmic, otorhinolaryngologic, oral, maxillofacial, plastic, genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neurologic surgical specialties.

STE 134 - Surgical Instruments Lab II

Credit(s): 1.5

Vocational Lab Hour(s): 3

Prerequisite(s): STE 102, STE 103

Introduces the history and materials used in the manufacture of surgical instruments, as well as the methods used to maintain, clean, and sterilize surgical instrumentation and equipment. Introduces supplies, equipment, and the names, category, and use of instrumentation used for genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neurologic surgical specialties.

STE 105 - Pharmacology for the Surgical Technologist

Credit(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Program admittance

Discuss relevant knowledge as it pertains to surgical pharmacology including the metric system, pharmacology theory, drugs and aspects of anesthesia.

Summer - 9

STE 281 - Surgical Technology Clinical Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 111, STE 112, STE 131, STE 141.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the first of three surgical technology clinical Internships.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical

thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

Second Fall - 13

STE 282 - Surgical Technology Clinical Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 281.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the second of three surgical technology clinical Internships.

STE 279 - CST Exam Review Course

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): STE 281.

Prepares students for the National Certification Exam administered by The National Board for Surgical Technology and Surgical Assisting (NBSTSA) by introducing test taking skills and strategies for success. Students will review major concepts in the surgical technology program in preparation for the CST examination.

BIO 116 - Introduction to Human Disease: GT-SC2

Credit(s): 3

Lecture Hour(s): 3

Focused analysis of the causes and mechanics of human illness and death will be presented for each of the major human body systems. Selected diseases will be studied in greater detail including etiology, pathogenesis, epidemiology, sociology, and therapy.

COM 105 - Career Communication

Credit(s): 3

Lecture Hour(s): 3

Develops skills needed in obtaining and keeping a job. Includes job searching, applications, resumes, interviews, and the dynamics of customer, peer and managerial relationships. Emphasizes speaking, writing, listening, critical reading skills and vocabulary development essential to the employment world.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Second Spring - 12

STE 283 - Surgical Technology Clinical Internship III

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 282.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the third of three surgical technology clinical Internships.

STE 289 - Surgical Technology Capstone

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): STE 282, STE 279

Outlines the skills needed in obtaining and keeping a job. Students will learn how to develop a personal marketing plan, set short and long term goals, manage targeted job searches, fill out paper and electronic applications, write a cover letter and resume, and practice mock interviews especially tailored to surgical technology. Students will also continue reviewing major concepts in the surgical technology program in preparation for the CST examination and take a final practice exam.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

Vehicle Extrication Mini-Certificate

CIP 43.0203

See list of Department Chairs on the Personnel page.

Career Opportunities

The Fire Science Technology program prepares students for entry-level positions in the fire service industry.

Certificate Program Description

The Fire Science Technology Certificate Programs vary in semester hours. These programs are designed to prepare individuals who have little or no firefighting experience for entry-level positions in the fire service industry, as well as special training for advancement for those already in the fire service. Most of the classes in the certificates related to structural firefighting can be applied to the Fire Science Associate of Applied Science Degree offered by Pueblo Community College.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

The Fire Science Technology Certificate Program requires 21 credits for completion.

A grade of "C" or higher is required in each course.

Total Credits: 3

Certificate Requirements

ALSO SEE WILDLAND FIREFIGHTER

FST 126 - Vehicle Extrication Awareness Level

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the student with entry level knowledge and skills to safely operate at the scene of a vehicle/machinery extrication. Training in this course represents the minimum level of training needed to respond to a vehicle extrication incident.

FST 127 - Vehicle Extrication Operations Level

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Expands and refines the objectives of FST 126. Students shall be capable of hazard recognition, equipment use and techniques necessary to operate safely and effectively at incidents involving persons injured or entrapped in a vehicle or machinery.

Web Design and Development, AAS

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 60

Degree Requirements

General Education Requirements (15 Credits)

Communications

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

OR

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

Mathematics

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

OR

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

Gen Ed Elective

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

Social Behavioral Sciences

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

Digital Media Requirements

MGD 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

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 business location and with the direct guidance of the instructor.

MGD 105 - Typography & Layout

Credit(s): 3

Vocational Lab Hour(s): 4.50

Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving and research. Provides experience producing thumbnails, roughs and digital layouts emphasizing refined creative typography.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CWB 209 - Web Content Management Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141

Explores the use of open source Content Management Systems (CMS) to simplify the creation and maintenance of web sites.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an

introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

MGD 268 - Business for Creatives

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121 or ENG 131

Presents a guide to freelance work and a study of business practices and procedures and models unique to creative occupations (graphic design, web design, animation, fine arts). Discussion includes determining charges, business forms, business planning, tax structure, licenses and registration, self-promotion (resume, website, portfolio, business identity package). Course may include visits by professionals in the field and discussion of career opportunities in a quickly changing career field.

MGD 289 - Capstone

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

A demonstrated culmination of learning within a given program of study.

MGD 242 - Web Architecture: Open Source Design

Credit(s): 3

Vocational Lab Hour(s): 4.50

Provides an overview of current open source tools used in the design industry for designing and implementing Web architecture. Course content changes with trends in the industry. Topics may include current content management platforms such as WordPress and Drupal, how to identifying web scripting languages, and an overview of open source programming such as PHP and MySQL.

CWB 206 - Server-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): MGD 141

Explores the creation of dynamic web pages and applications using server-side scripting with database interactivity, server-based scripting languages, and database manipulation languages.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

CWB 208 - Web Application Development: (Development Tool(s))

Credit(s): 3

Vocational Lab Hour(s): 4.5

Teaches students how to work in the server-side scripting environment. Students learn the basics of application development, and general principles that apply to most development environments. Students develop applications using two different server-side application development tools: PHP Hypertext Preprocessor (PHP), and Cold Fusion. Students also learn key application standards such as source and revision control, coding standards, code optimization and data integrity.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

MGD 227 - Marcomm Practices

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): JOU 105, or Department Chair Approval

Explores techniques and approaches in the practice of marketing communications (marcomm), including advertising, branding, direct marketing, packaging, promotion, publicity, sponsorship, public relations, sales, online marketing,

social media marketing and more. Focuses on understanding the relationships between the different components of marketing communications to achieve maximum message effect.

Web Design Certificate

CIP 09.0702

See list of Department Chairs on the Personnel page.

Career Opportunities

Careers in Media Communications are in demand and PCC offers an affordable way for students to begin their education. Some of the exciting career options within this field include: Graphic Designers; Web Developers; Broadcast Technicians; Film Video Editors; and Advertising & Promotion Managers.

Program Description

The Media Communications program teaches students to think critically and develop skills in Web Design, Graphic Design, Advertising, Videography, News Writing, and TV-Radio Production. Courses provide a solid foundation in these areas through a combination of lecture and hands on applications. There are multiple labs with state of the art equipment and software for your area of emphasis. The Media Communications program provides a high technical skill attainment in this changing field of communication. Students have multiple options to pursue. The AAS degrees with emphases in Graphic Design and Web Design offer advanced technical skills in these areas. Certificates provide basic skill sets to enhance an existing degree or occupation. The AGS degree provides a transfer option to a four year university. If interested in this option, please refer to the Transferring Credits section of the catalog.

Total Credits: 18

Certificate Requirements

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

Welding Certificate

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to be become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 33

Certificate Requirements

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

WEL 100 - Safety for Welders

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of welding on health and safety.

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

or

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

WEL 263 - Applied Metal Properties

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Introduces the study of metal properties, hardness testing, heat treatment, cold working microscopic examination and application of common commercial alloys in industry.

Welding, AAS

CIP 48.0508

See list of Department Chairs on the Personnel page.

Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers and related sites. You may also work as a self-employed welder.

Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also included in the degree program. This two-semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

Total Credits: 64

Degree Requirements

General Education Requirements (15 Credits)

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

- Art/Humanities, or Social/Behavioral Science, or Communications, or Physical/Life Science **Credit(s): 8**

Core Curriculum Requirements (41 Credits)

WEL 100 - Safety for Welders

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of welding on health and safety.

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

or

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 125 - Introduction to Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124.

Covers welding in all positions and on various joint configurations using the GMAW (mig) welding process on carbon steel, stainless steel and aluminum. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 224 - Advanced Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers Gas Tungsten Arc Welding (GTAW) operations utilizing a variety of base metals and advanced joint designs.

WEL 225 - Advanced Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers welding in all positions on carbon steel plate with the GMAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 233 - 2G-Horizontal Pipe A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 104 or equivalent.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G horizontal position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

Related Requirements (8 Credits)

Option A (Orman Campus)

WEL 251 - Design, Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102, WEL 124, WEL 250.

Develops advanced welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.

WEL 263 - Applied Metal Properties

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Introduces the study of metal properties, hardness testing, heat treatment, cold working microscopic examination and application of common commercial alloys in industry.

Option B (PCC Southwest Campus)**WEL 234 - 5G-Vertical Down A.P.I.****Credit(s): 4****Lecture Hour(s): 1****Vocational Lab Hour(s): 4.50****Prerequisite(s):** WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 235 - 6G-45 Down A.P.I.**Credit(s): 4****Lecture Hour(s): 1****Vocational Lab Hour(s): 4.50****Prerequisite(s):** WEL 234.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

Wildland Firefighter Mini-Certificate

CIP 43.0299

See list of Department Chairs on the Personnel page.

Career Opportunities

The Wildland Firefighter Certificate will prepare students for a career with local and state fire departments and federal land management agencies (US Forest Service, etc.). Additionally, this certificate is designed for individuals with a general interest in wildland fire suppression; volunteer firefighters who would like to expand their knowledge and career opportunities; and currently enrolled students with an interest in supplementing their degrees.

Program Description

The Wildland Firefighter Program will provide students with a solid foundation in theory and application of wildland fire suppression concepts. This certificate will also provide training that exceeds the minimum requirements for prospective wildland firefighters as established by the National Fire Protection Association and the National Wildfire Coordinating Group.

Program Requirements

Entrance Requirements:

Successful completion of any CCR course or qualifying placement score or exemption.

Graduation Requirements:

Successful completion of all course work with a grade of "C" or better.

Total Credits: 12.75

Certificate Requirements

FSW 100 - S-190 Introduction to Wildland Fire Behavior

Credit(s): 1

Lecture Hour(s): 1

Provides instruction in the primary environmental factors that affect the start and spread of wildfire and recognition of potentially hazardous situations. This course can be taught in conjunction with or prior to FSW 101 - S-130 Firefighting Training.

FSW 101 - S-130 Firefighting Training

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Provides entry-level firefighter skills. A version of the L-180, Human Factors on the Fire line, is included as part of the course. Credit should be issued for S-130.

FSW 102 - S-131 Firefighter Type I

Credit(s): 0.50

Lecture Hour(s): 0.50

Designed to meet the training needs of the Firefighter Type 1. It contains several tactical decision modules designed to facilitate learning the objectives and class discussion. This course is designed to be interactive in nature. Topics include fire line reference materials, communications and tactical decision making.

FSW 103 - D-110 Dispatch Recorder with Introduction to Ross

Credit(s): 1

Lecture Hour(s): 1

Trains potential dispatch recorders on the structure of an expanded dispatch organization and how to effectively perform within that organization. Course will provide the student with a working knowledge of the purpose and process of completing the resource order and other dispatch forms. It will also provide instruction on established dispatch procedures.

FSW 104 - I-100 Introduction to ICS

Credit(s): 0.25

Lecture Hour(s): 0.25

Address the ICS organization basic terminology and common responsibilities. It provides a foundation upon which to enable entry-level personnel to function appropriately in the performance of incident-related duties. For students continuing through more complex ICS modules, this course may be used as pre-course work.

- FSW 140 - S-200 Initial Attack Incident Commander **Credit(s): 1**
- FSW 141 - S-203 Introduction to Incident **Credit(s): 2**
- FSW 142 - S-211 Portable Pumps and Water Use **Credit(s): 1.5**

FSW 143 - S-212 Wildfire Chain Saws

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Provides 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 provide hands-on cutting in surroundings similar to fire line situations.

- FSW 155 - I-200, IS-200, Q-436 Basic ICS: ICS for Single Resources and Initial Action Incidents **Credit(s): 1.5**

CCCS Guaranteed Transfer (GT) - Pathways Courses

Dr. Jeffrey Alexander, Dean of Arts and Sciences

In December 2005, the Colorado Commission on Higher Education established a statewide transfer policy for general education course credits. This policy is also known as GT Pathways. The table below lists GT Pathways Courses that are included in this policy. Although Pueblo Community College does not offer all of the courses listed in the table below, if you are transferring any of these courses to PCC from an accredited post-secondary institution, these courses will be accepted at PCC.

CCCS Guaranteed Transfer (GT) - Pathways Courses

Introductory Writing Courses (GT-CO1)

- ENG 121 - English Composition I: GT-CO1 **Credit(s): 3**
- ENG 131 - Technical Writing I **Credit(s): 3**

Intermediate Writing Courses (GT-CO2)

- ENG 122 - English Composition II: GT-CP2 **Credit(s): 3**

Advanced Writing Courses (GT- CO3)

- ENG 201 - Composition III: Writing for Public Discourse GT-CO3 **Credit(s): 3**

Mathematics (GT-MA1)

- MAT 120 - Mathematics for the Liberal Arts: GT-MA1 **Credit(s): 4**
- MAT 121 - College Algebra: GT-MA1 **Credit(s): 4**
- MAT 122 - College Trigonometry: GT-MA1 **Credit(s): 3**
- MAT 123 - Finite Mathematics: GT-MA1 **Credit(s): 4**
- MAT 125 - Survey of Calculus: GT-MA1 **Credit(s): 4**
- MAT 135 - Introduction to Statistics: GT-MA1 **Credit(s): 3**
- MAT 201 - Calculus I: GT-MA1 **Credit(s): 5**
- MAT 202 - Calculus II: GT-MA1 **Credit(s): 5**
- MAT 203 - Calculus III: GT-MA1 **Credit(s): 4**
- MAT 204 - Calculus III with Engineering Applications: GT-MA1 **Credit(s): 5**
- MAT 215 - Discrete Mathematics: GT-MA1 **Credit(s): 4**
- MAT 261 - Differential Equations with Engineering Applications: GT-MA1 **Credit(s): 4**
- MAT 265 - Differential Equations: GT-MA1 **Credit(s): 3**

Arts and Expression (GT-AH1)

- ART 110 - Art Appreciation: GT-AH1 **Credit(s): 3**
- ART 111 - Art History Ancient to Medieval: GT-AH1 **Credit(s): 3**
- ART 112 - Art History Renaissance to Modern: GT-AH1 **Credit(s): 3**
- ART 207 - Art History – 1900 to Present: GT-AH1 **Credit(s): 3**
- DAN 125 - Dance History: AH1 **Credit(s): 3**
- DAN 150 - Dance Appreciation: AH1 **Credit(s): 3**
- ENG 221 - Creative Writing I **Credit(s): 3**
- MUS 120 - Music Appreciation: GT-AH1 **Credit(s): 3**
- MUS 121 - Music History Medieval Thru Classical Period: GT-AH1 **Credit(s): 3**
- MUS 122 - Music History Early Romantic Period to the Present: GT-AH1 **Credit(s): 3**
- MUS 125 - History of Jazz: GT-AH1 **Credit(s): 3**
- THE 105 - Theatre Appreciation: GT-AH1 **Credit(s): 3**
- THE 211 - Development of Theatre Greek-Renaissance: GT-AH1 **Credit(s): 3**
- THE 212 - Development of Theatre Restoration to Modern: GT-AH1 **Credit(s): 3**
- THE 215 - Playwriting: GT-AH1 **Credit(s): 3**

Literature and Humanities (GT-AH2)

- HUM 103 - Introduction to Film Art: GT-AH2 **Credit(s): 3**

- HUM 115 - World Mythology: GT-AH2 **Credit(s): 3**
- HUM 121 - Humanities: Early Civilization: GT-AH2 **Credit(s): 3**
- HUM 122 - Humanities: Medieval - Modern: GT-AH2 **Credit(s): 3**
- HUM 123 - Humanities: Modern World: GT-AH2 **Credit(s): 3**
- LIT 115 - Introduction to Literature I: GT-AH2 **Credit(s): 3**
- LIT 201 - World Literature to 1600: GT-AH2 **Credit(s): 3**
- LIT 202 - World Literature After 1600: GT-AH2 **Credit(s): 3**
- LIT 205 - Ethnic Literature: GT-AH2 **Credit(s): 3**
- LIT 211 - American Literature to Civil War: GT-AH2 **Credit(s): 3**
- LIT 212 - American Literature After Civil War: GT-AH2 **Credit(s): 3**
- LIT 225 - Introduction to Shakespeare: GT-AH2 **Credit(s): 3**
- LIT 246 - Literature of Women: GT-AH2 **Credit(s): 3**
- LIT 259 - Survey of African American Literature **Credit(s): 3**
- LIT 268 - Celtic Literature **Credit(s): 3**

Ways of Thinking (GT-AH3)

- PHI 111 - Introduction to Philosophy: GT-AH3 **Credit(s): 3**
- PHI 112 - Ethics: GT-AH3 **Credit(s): 3**
- PHI 113 - Logic: GT-AH3 **Credit(s): 3**
- PHI 114 - Comparative Religions: GT-AH3 **Credit(s): 3**
- PHI 115 - World Religions-West: GT-AH3 **Credit(s): 3**
- PHI 214 - Philosophy of Religion: GT-AH3 **Credit(s): 3**
- PHI 218 - Environmental Ethics: GT-AH3 **Credit(s): 3**
- PHI 220 - Philosophy of-Death and Dying: GT-AH3 **Credit(s): 3**

World Languages (GT-AH4)

- SPA 211 - Spanish Language III: GT-AH4 **Credit(s): 3**
- SPA 212 - Spanish Language IV: GT-AH4 **Credit(s): 3**

History (GT-HI1)

- HIS 101 - Western Civilization: Antiquity-1650: GT-HI1 **Credit(s): 3**
- HIS 102 - Western Civ: 1650-present: GT-HI1 **Credit(s): 3**
- HIS 111 - The World: Antiquity-1500: GT-HI1 **Credit(s): 3**
- HIS 112 - The World: 1500-present: GT-HI1 **Credit(s): 3**
- HIS 121 - U.S. History to Reconstruction: GT-HI1 **Credit(s): 3**
- HIS 122 - U.S. History Since the Civil War: GT-HI1 **Credit(s): 3**
- HIS 225 - Colorado History: GT-HI1 **Credit(s): 3**
- HIS 247 - 20th Century World History: GT-HI1 **Credit(s): 3**

Economic or Political Systems (GT-SS1)

- AEC 102 - Residential Construction Drawing **Credit(s): 4**
- ECO 201 - Principles of Macroeconomics: GT-SS1 **Credit(s): 3**
- ECO 202 - Principles of Microeconomics: GT-SS1 **Credit(s): 3**
- ECO 245 - Environmental Economics: GT-SS1 **Credit(s): 3**
- POS 105 - Introduction to Political Science: GT-SS1 **Credit(s): 3**
- POS 111 - American Government: GT-SS1 **Credit(s): 3**
- POS 125 - American State and Local Government: GT-SS1 **Credit(s): 3**

Geography (GT-SS2)

- GEO 105 - World Regional Geography: GT-SS2 **Credit(s): 3**
- GEO 106 - Human Geography: GT-SS2 **Credit(s): 3**

Human Behavior, Culture, or Social Frameworks (GT-SS3)

- ANT 101 - Cultural Anthropology: GT-SS3 **Credit(s): 3**
- ANT 107 - Introduction to Archaeology: GT-SS3 **Credit(s): 3**
- ANT 215 - Native Peoples of North America: GT-SS3 **Credit(s): 3**
- PSY 101 - General Psychology I: GT-SS3 **Credit(s): 3**
- PSY 102 - General Psychology II: GT-SS3 **Credit(s): 3**
- PSY 205 - Psychology of Gender: GT-SS3 **Credit(s): 3**
- PSY 217 - Human Sexuality: GT-SS3 **Credit(s): 3**
- PSY 226 - Social Psychology: GT-SS3 **Credit(s): 3**
- PSY 227 - Psychology of Death and Dying: GT-SS3 **Credit(s): 3**
- PSY 231 - Positive Psychology: GT-SS3 **Credit(s): 3**
- PSY 235 - Human Growth and Development: GT-SS3 **Credit(s): 3**
- PSY 238 - Child Development: GT-SS3 **Credit(s): 3**
- PSY 240 - Health Psychology: GT-SS3 **Credit(s): 3**
- PSY 249 - Abnormal Psychology: GT-SS3 **Credit(s): 3**
- PSY 265 - Psychology of Personality: GT-SS3 **Credit(s): 3**
- SOC 101 - Introduction to Sociology I: GT-SS3 **Credit(s): 3**
- SOC 102 - Introduction to Sociology II: GT-SS3 **Credit(s): 3**
- SOC 205 - Sociology of Family Dynamics: GT-SS3 **Credit(s): 3**
- SOC 207 - Environmental Sociology: GT-SS3 **Credit(s): 3**
- SOC 215 - Contemporary Social Problems: GT-SS3 **Credit(s): 3**
- SOC 216 - Sociology of Gender: GT-SS3 **Credit(s): 3**
- SOC 218 - Sociology of Diversity: GT-SS3 **Credit(s): 3**
- SOC 231 - The Sociology of Deviant Behavior: GT-SS3 **Credit(s): 3**
- SOC 237 - Sociology of Death and Dying: GT-SS3 **Credit(s): 3**
- WST 200 - Introduction to Women's Studies: GT-SS3 **Credit(s): 3**

Natural & Physical Sciences: (GT-SC1)

Courses WITH Required Laboratory

- ANT 111 - Biological Anthropology with Laboratory: GT-SC1 **Credit(s): 4**
- AST 101 - Astronomy I With Lab: GT-SC1 **Credit(s): 4**
- AST 102 - Astronomy II with Lab: GT-SC1 **Credit(s): 4**
- BIO 105 - Science of Biology with Lab: GT-SC1 **Credit(s): 4**
- BIO 111 - General College Biology I with Lab: GT-SC1 **Credit(s): 5**
- BIO 112 - General College Biology II with Lab: GT-SC1 **Credit(s): 5**
- BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1 **Credit(s): 4**
- BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1 **Credit(s): 4**
- BIO 204 - Microbiology with Lab: GT-SC1 **Credit(s): 4**
- CHE 101 - Introduction to Chemistry I with Lab: GT-SC1 **Credit(s): 5**
- CHE 102 - Introduction to Chemistry II with Lab: GT-SC1 **Credit(s): 5**
- CHE 105 - Chemistry in Context with Lab: GT-SC1 **Credit(s): 5**
- CHE 111 - General College Chemistry I with Lab: GT-SC1 **Credit(s): 5**
- CHE 112 - General College Chemistry II with Lab: GT-SC1 **Credit(s): 5**
- GEO 111 - Physical Geography: Landforms with Lab: GT-SCI **Credit(s): 4**
- GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI **Credit(s): 4**
- GEY 111 - Physical Geology with Lab: GT-SC1 **Credit(s): 4**
- GEY 112 - Historical Geology: GT-SC1 **Credit(s): 4**
- GEY 135 - Environmental Geology with Lab: GT-SC1 **Credit(s): 4**
- PHY 105 - Conceptual Physics with Lab: GT-SC1 **Credit(s): 4**
- PHY 107 - Energy Science & Technology with Lab: GT-SC1 **Credit(s): 4**
- PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1 **Credit(s): 5**
- PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1 **Credit(s): 5**
- PHY 211 - Physics: Calculus Based I with Lab: GT-SC1 **Credit(s): 5**
- PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1 **Credit(s): 5**
- SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1 **Credit(s): 4**
- SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1 **Credit(s): 4**

Natural & Physical Sciences: (GT-SC2)

Lecture Courses WITHOUT Required Laboratory

- BIO 116 - Introduction to Human Disease: GT-SC2 **Credit(s): 3**
- SCI 105 - Science in Society: GT-SC2 **Credit(s): 3**

Course Descriptions

[Click here for a Legend of the Course Descriptions](#)

Accounting

ACC 101 - Fundamentals of Accounting

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department chair/advisor approval.

Corequisite(s): ACC 103, BTE 156 highly recommended.

Presents the basic elements and concepts of accounting, with emphasis on the procedures used for maintaining journals, ledgers, and other related records, and for the completion of end-of-period reports for small service and merchandising businesses.

ACC 102 - Fundamentals of Accounting Hands-on Lab

Credit(s): 2

Vocational Lab Hour(s): 3

Corequisite(s): ACC 101.

Covers the practical lab portion of the Fundamentals of Accounting course providing hands-on activities using software provided by the publisher or Open Educational Resources (OER) content. The lab demonstrates the recording of accounting information discussed in ACC 101 with emphasis on the procedures and practices used in business organizations.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

ACC 103 - Fundamentals of Accounting Lab

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Department Chair Approval.

Corequisite(s): ACC 101.

Designed as the practical lab portion of the Fundamentals of Accounting course. Emphasizes the demonstration of recording accounting information discussed in each chapter of ACC 101 .

ACC 115 - Payroll Accounting

Credit(s): 3

Lecture Hour(s): 3

Covers federal and state employment laws and their effects on personnel and payroll records. The course is non-technical and is intended to give students a practical working knowledge of the current payroll laws and actual experience in applying regulations, including computerized payroll procedures.

ACC 121 - Accounting Principles I

Credit(s): 4

Lecture Hour(s): 4

Introduces the study of accounting principles for understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising companies, special journals and subsidiary ledgers, internal control principles and practices, notes and interest, inventory systems and costing, plant assets and intangible asset accounting, and depreciation methods and practices.

ACC 122 - Accounting Principles II

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): ACC 121

This course continues the application of accounting principles to business organizations. Major topics include corporate equity and debt financing, investments, cash flow statements, financial analysis, budgeting, cost and managerial accounting.

ACC 125 - Computerized Accounting

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): ACC 122

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

ACC 131 - Income Tax

Credit(s): 3

Lecture Hour(s): 3

This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting periods and methods, and property transactions, with emphasis on taxation of individuals and sole proprietorships.

ACC 132 - Tax Help Colorado

Credit(s): 2

Lecture Hour(s): 2

This course prepares the students for preparation of federal and state income tax returns for individuals. Emphasis is placed on form preparation with the use of tax software.

ACC 133 - Tax Help Colorado Practicum

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Volunteer IRS Tax Preparer Certificate at Intermediate Level.

This course allows students to prepare actual federal and state income tax returns for individuals in a real time environment.

ACC 135 - Spreadsheet Applications for Accounting

Credit(s): 3

Lecture Hour(s): 3

Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

ACC 138 - Payroll and Sales Tax

Credit(s): 3

Lecture Hour(s): 3

Introduces laws pertaining to payroll and sales taxes including record keeping rules; preparation of various federal, state and local forms for reporting payroll and sales taxes; and computerized payroll procedures.

ACC 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ACC 211 - Intermediate Accounting I**Credit(s): 4****Lecture Hour(s): 4**

Focuses on comprehensive analysis of generally accepted accounting principles (GAAP), accounting theory, concepts and financial reporting principles for public corporations. It is the first of a two-course sequence in financial accounting and is designed primarily for accounting and finance majors. Focuses on the preparation and analysis of business information relevant and useful to external users of financial reports. Explores the theories, principles and practices surveyed in Accounting Principles and critically examines real-world financial analysis and reporting issues.

ACC 212 - Intermediate Accounting II**Credit(s): 4****Lecture Hour(s): 4****Prerequisite(s):** ACC 211

Focuses on the theoretical and practical aspects of accounting for long-term liabilities, stockholders' equity, investments, pensions and leases. Includes income tax allocation, financial statement analysis, cash flow statements and accounting methods changes.

ACC 216 - Governmental and Not-for-Profit Accounting**Credit(s): 3****Lecture Hour(s): 3****Prerequisite(s):** ENG 131, ACC 122, or ENG 121

Addresses concepts of budgetary control as a matter of law and public administration theory. Accounting principles and procedures necessary to implement budgetary controls for governmental units and other not-for-profit institutions and organizations are presented.

ACC 226 - Cost Accounting**Credit(s): 3****Lecture Hour(s): 3****Prerequisite(s):** ACC 122, ENG 121

Course covers cost accumulation methods and reports including job order, process, standards, and activity-based cost systems associated with budgeting, planning, and control of costs.

ACC 235 - Computerized Accounting for Small Businesses**Credit(s): 3****Lecture Hour(s): 3****Prerequisite(s):** ACC 121, ENG 121

Introduces an electronic accounting application for use in a small business. This course will focus on installing and launching the application, converting a manual accounting system to an electronic system, recording daily transactions, and summarizing records in reports for a complete financial picture.

ACC 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ACC 287 - Cooperative Education

Credit(s): 3

Internship Hour(s): 9

Provides an opportunity to gain practical experience in applying occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives, and coordinate learning activities with the employer or work site supervisor. For Accounting majors only.

Advancing Academic Achievement

AAA 050 - Semester Survival

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Instructor or academic advisor approval.

Emphasizes basic study skills in order to bolster their chances of completing the current semester successfully.

AAA 075-077 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

AAA 090 - Academic Achievement Strategies

Credit(s): 3

Lecture Hour(s): 3

Develops personalized approaches to learn and succeed for easier transition into college. Topics include goal-setting, time management, textbook reading strategies, note-taking, test-taking, listening techniques, concentration and memory devices, and critical thinking for student success.

AAA 098 - S.T.E.P.S for College Success

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Introduces students to the college culture and to campus resources that support academic success. Students will access and use tools in the college portal and learning management system throughout the course. The student's role in achieving academic success will be emphasized through course content that includes practice in goal setting, effective communication, team building, critical and creative thinking techniques, academic and personal management, and application of active learning strategies.

AAA 101 - College 101: The Student Experience

Credit(s): 1

Lecture Hour(s): 1

Introduces students to college culture and prepares them for challenges they will face in higher education. Through a

series of interactive Seminars, students discover learning in a multicultural environment and the use of college and community resources to attain education and career goals.

AAA 109 - Advanced Academic Achievement

Credit(s): 3

Lecture Hour(s): 3

Examines theories and practices associated with successful learning to enhance college success. Recommended for new and returning students, this course study areas including education and career planning, effective communication, personal management, critical and creative thinking, development of community and awareness of diversity, leadership, and techniques for successful academic performance.

AAA 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

AAA 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Agriculture Business

AGB 102 - Foundations of Agri-Business

Credit(s): 3

Lecture Hour(s): 3

Focuses on the foundational aspects of the primary agriculture business areas including economics, management, marketing, sales and finance in an applied manner. Current events in agriculture are discussed with emphasis on application to agribusiness.

Agriculture Crops & Soils

AGY 100 - General Crop Production

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on production and adaptation of cultivated crops, principles affecting growth, development, management, and utilization.

AGY 240 - Introductory Soil Science: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Focuses on formation, physical properties, chemical properties and management of soils emphasizing conditions that affect plant growth. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1.

Agriculture Economics

AGE 205 - Farm and Ranch Management

Credit(s): 3

Lecture Hour(s): 3

Provide students with practical experience in applying principles of economics, business, marketing and finance to the management of a farm/ranch operation.

American Sign Language

ASL 101 - Basic Sign Language I

Credit(s): 3

Lecture Hour(s): 3

Provides students with the basic knowledge of communicating with the deaf community. Students will develop basic vocabulary and conversational skills and will be introduced to aspects of the deaf culture and community.

ASL 102 - Basic Sign Language II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ASL 101 or instructor approval.

Continues the sequence for students who want to learn basic conversational patterns to communicate with the Deaf community. The material covers basic vocabulary and conversational skills, and aspects of the Deaf culture and community.

ASL 125 - Fingerspelling

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ASL 101, or Instructor approval.

Provides the student an opportunity to develop expressive and receptive fingerspelling through various class activities.

ASL 135 - Conversational ASL

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Successful completion of ASL 102, or Instructor approval.

Provides the student an extended opportunity to develop a strong grasp of American Sign language (ASL) as well as the cultural features of the language. It helps the student maintain sign language skill.

ASL 175-177 - Special Topics

Credit(s): 0-12

Exploration of current topics, issues and activities related to one or more aspects of the named discipline.

ASL 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Animal Science

ASC 100 - Animal Sciences

Credit(s): 3

Lecture Hour(s): 3

Covers the basic fundamentals of livestock production including the principles of nutrition, reproduction, breeding, genetics, health, and physiology of cattle, sheep, swine, horses, and other farm species. Trends and issues in animal science and animal agriculture are also discussed in this course.

Anthropology

ANT 101 - Cultural Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Studies human cultural patterns and learned behavior including linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 107 - Introduction to Archaeology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. The course provides a survey of the archaeology of different areas of the Old and New Worlds, the works of selected archaeologists, and major archaeological theories. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

ANT 111 - Biological Anthropology with Laboratory: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the study of the human species and related organisms, and examines principles of genetics, evolution, anatomy, classification, and ecology, including a survey of human variation and adaptation, living primate biology and behavior, and primate and human fossil evolutionary history.

ANT 121 - Cultures of the Southwest

Credit(s): 3

Lecture Hour(s): 3

Includes the major prehistoric cultures (Paleoindian, Desert Culture, Anasazi, Hohokam, Mogollon) and ethnographic views of the historic cultures (Pueblos, Navajo, Apache, Pima, Papago, Spanish-American and Anglo-American). The purpose of the study is to trace the stages through which these cultures have passed in order to evaluate environmental influences on human activities and to perceive human influences on the environment.

ANT 137 - Southwest US Archaeology

Credit(s): 3

Lecture Hour(s): 3

Identifies the complex regional population centers and cultural traditions of prehistoric peoples of the 4-Corners (Colorado, Arizona, New Mexico, Utah) and analyses evidence of cultural interaction with peoples of Meso-America and with the ecology of the region.

ANT 175-177 - Special Topics

Credit(s): 0-12

Studies human cultural patterns and learned behavior. Includes linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

ANT 215 - Native Peoples of North America: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ANT 101, or Department Chair Approval.

Studies the origins of native peoples in the New World, through the development of geographic culture areas, to European contact and subsequent contemporary Native American issues. This is a statewide Guaranteed Transfer course in the GT-SS3 category. GT-SS3

ANT 221 - Exploring Other Cultures I

Credit(s): 3

Lecture Hour(s): 3

Provides an anthropological understanding of a selected culture including language, processes of enculturation, subsistence patterns and economics, kinship and descent, political organization, religion, art, history, and its reactions to the forces of globalization.

ANT 250 - Medical Anthropology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores the basic principles of medical anthropology, an applied field within the discipline of cultural anthropology, including the cross-cultural study of illness, health, healing, death, globalization, and the interaction of medical systems between cultures. This course is one of the Statewide Guaranteed Transfer courses. GT-SS3. GT-SS3

ANT 275-277 - Special Topics

Credit(s): 0-12

Provides opportunity for off-campus field experience or study of a special topic in anthropology. Field study may occur at archaeological sites, museums, host educational institutions, within ethnographic situations, or other anthropologically appropriate places. Study of a special topic may include that derived from physical anthropology, cultural anthropology, archaeology, or other anthropological discipline.

Architecture Engineering/Construction Management

AEC 102 - Residential Construction Drawing

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 202.

Investigates light frame construction techniques and the production of residential construction drawings. The course covers residential construction materials, components and systems related to wood frame structures. Students produce a professional set of construction drawings of a residential structure.

AEC 121 - Construction Materials and Systems

Credit(s): 3

Lecture Hour(s): 3

Examines building materials and construction techniques. Topics include a study of soils, concrete, brick, masonry, steel, timber, and plastics and a study of types of building structural systems and components. Principles of interpreting light commercial construction drawings (blueprints) for structural and trade information are also introduced.

AEC 123 - Commercial Construction Drawing

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 202.

Examines the process of drawing commercial architectural plans, elevations, sections, details, and schedules. Students produce a portfolio of construction drawings of a multistory core and shell of a structure.

AEC 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

AEC 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Art

ART 107 - Art Education Methods

Credit(s): 3

Lecture Hour(s): 3

Focuses on a multimedia approach to teaching art. Emphasizes strong creative presence, philosophy and techniques in drawing, painting, printmaking, and other media.

ART 110 - Art Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions and terminology.

ART 111 - Art History Ancient to Medieval: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Ancient through the Medieval periods.

ART 112 - Art History Renaissance to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides the knowledge base to understand the visual arts, especially as related to Western culture. Surveys the visual arts from the Renaissance to 1900.

ART 114 - Art Sampler

Credit(s): 1

Art Studio Hour(s): 2

Introduces students to basic skills through various art media. This course may be repeated under a different subtitle for a maximum of six credit hours. Encompasses a multitude of one-credit art experiences that expose students to an art form that they may wish to explore further.

ART 121 - Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Investigates the various approaches and media that students need to develop drawing skills and visual perception.

ART 122 - Drawing for the Graphic Novel

Credit(s): 3

Art Studio Hour(s): 6

Introduces the drawing and fine art principles used in developing illustrations for the graphic novel. Students explore the graphic novel as a vehicle for a unique, personal venue for artistic expression. Students explore the history of the graphic novel as well as examine different artistic styles used in the development of graphic novel illustrations. The application of artistic concepts in the creation of an individual graphic work and thorough examination of course material in terms of style, design considerations and visual elements are the primary focus. Students will create images for a graphic novel, focusing on unity of style and techniques for creating images appropriate to story line using black and white or grayscale illustrations.

ART 124 - Watercolor I

Credit(s): 3

Art Studio Hour(s): 6

Provides an introduction to the basic techniques and unique aspects of materials involved in the use of either transparent or opaque water media or both. Color theory is included.

ART 128 - Figure Drawing I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the basic techniques of drawing the human figure.

ART 129 - Printmaking I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the basic techniques and skills of printmaking as a fine art media. Instruction includes an understanding of visual concepts as they relate to prints. May include introduction to relief, intaglio, lithography and screen printing techniques.

ART 131 - Visual Concepts 2-D Design

Credit(s): 3

Art Studio Hour(s): 6

Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 132 - Visual Concepts 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Focuses on learning to apply the elements and principles of design to three dimensional problems.

ART 133 - Jewelry and Metalwork I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the construction of jewelry designs in metals and small casting techniques.

ART 139 - Digital Photography I

Credit(s): 3

Art Studio Hour(s): 6

Presents the fundamentals of fine art digital photography, including camera equipment and software used for image capture, management and manipulation. Topics include camera settings and exposure control, composition, working with light and time, and creative image manipulation.

ART 141 - Studio Photography

Credit(s): 3

Art Studio Hour(s): 6

Explores the creative uses of studio lighting from the perspective of fine art photography with an emphasis on portraiture, three-dimensional object photography and two-dimensional collage photography.

ART 142 - Landscape Photography

Credit(s): 3

Art Studio Hour(s): 6

Focuses on traditional and contemporary approaches to landscape photography. Examines technical and aesthetic aspects of landscape photography through group discussions, a field study, lectures and print and slide critiques.

ART 144 - Portrait Photography

Credit(s): 3

Art Studio Hour(s): 6

Teaches the technical and aesthetic aspects of studio and location portrait photography. This course explores the personal style of portraiture, history of the field and portraiture as a visual language and creative expression. This topic also includes lighting, composition, posing and equipment selection.

ART 145 - Digital Darkroom

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): ART 139 or permission of the department chair.

Teaches computer aided photography and darkroom techniques. The emphasis of this course is image-editing software, which can be used to color correct, retouch and composite photographic images. Other topics include image acquisition, storage, file management, special effects, hard copy and web-based image output.

ART 150 - Digital Art Foundations I

Credit(s): 3

Art Studio Hour(s): 6

Explores visual problem solving using digital tools for fine art. Students will learn to draw and paint in a variety of artistic modalities using color and grayscale. Two-dimensional to three-dimensional observation exercises in composition will be explored. Students will develop their skills in gesture and contour drawing, painterly expression and artistic elements while using the computer as an art tool. Use of systematic applications for development and presentation of ideas is practiced using vector and raster software. No computer experience is necessary.

ART 151 - Painting I

Credit(s): 3

Art Studio Hour(s): 6

Explores basic techniques, materials and concepts used in opaque painting processes in oil or acrylic painting to depict form and space on a two-dimensional surface.

ART 161 - Ceramics I

Credit(s): 3

Art Studio Hour(s): 6

Introduces traditional and contemporary ceramic forms and processes including hand building and throwing on the potter's wheel.

ART 162 - Handbuilt Clay I

Credit(s): 3

Art Studio Hour(s): 6

Provides instruction in several methods of hand building and the study of functional and decorative design elements.

ART 163 - Handbuilt Clay II

Credit(s): 3

Art Studio Hour(s): 6

Provides continued instruction in various methods of hand building.

ART 165 - Sculpture I

Credit(s): 3

Art Studio Hour(s): 6

Introduces the fundamentals of sculpture such as modeling, casting, carving, and the processes of assemblage.

ART 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ART 207 - Art History – 1900 to Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism.

ART 209 - Studio Art

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): Department Chair Approval.

Designed for advanced students interested in further exploring an art discipline to develop a more comprehensive portfolio.

ART 210 - Marketing for Visual Arts

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of any 12 credits of Art courses or Department Chair Approval.

Provides students with the framework, tools and professional materials necessary for the practicing visual artist. Guidelines for writing proposals, artist's statements and resumes are discussed and practiced. Explores theoretical and practical considerations related to portfolio presentation and exhibiting artwork through hands-on activities, readings and discussion.

ART 211 - Business of Visual Art

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the principles and practices involved in creating and operating arts organizations in the profit and not-for-profit art world.

ART 221 - Drawing II

Credit(s): 3

Art Studio Hour(s): 6

Explores expressive drawing techniques with an emphasis on formal composition, color media and content or thematic development.

ART 222 - Drawing III

Credit(s): 3

Art Studio Hour(s): 6

Offers a continued study of expressive drawing techniques and development of individual style, with an emphasis on composition and technique variation.

ART 224 - Watercolor II

Credit(s): 3

Art Studio Hour(s): 6

Continues the study of watercolor techniques, emphasizing original compositions and experimentation with materials. Color theory is included.

ART 228 - Advanced Figure Drawing

Credit(s): 3

Art Studio Hour(s): 6

Provides continuing study of the various methods of drawing the human figure, with emphasis on the description of form and individual style.

ART 232 - Advanced 3-D Design

Credit(s): 3

Art Studio Hour(s): 6

Provides continued study of the principles and elements of three-dimensional design with an emphasis on visual communication for further application in fine art, commercial art, and/or applied arts.

ART 233 - Jewelry and Metalwork II

Credit(s): 3

Art Studio Hour(s): 6

Emphasizes conceptual design development using casting and specialized techniques.

ART 234 - Jewelry and Metalwork III

Credit(s): 3

Art Studio Hour(s): 6

Focuses upon advanced work and emphasizes experimentation with materials and techniques, individual designs and superior craftsmanship.

ART 235 - Jewelry and Metalwork IV

Credit(s): 3

Art Studio Hour(s): 6

Provides continued study of the properties of metal and stone in creating decorative work. Students employ advanced design and techniques to explore original, personal expression. A variety of materials and approaches are used in discovering new and independently creative finished pieces.

ART 239 - Digital Photography II

Credit(s): 3

Art Studio Hour(s): 6

Expands upon the beginning digital photography class. Focuses on digital photography in terms of design and communication factors including color, visual design, lighting, graphics and aesthetics.

ART 251 - Painting II

Credit(s): 3

Art Studio Hour(s): 6

This course further explores techniques, materials and concepts used in opaque painting processes in oil or acrylic painting, with emphasis on composition and content development.

ART 252 - Painting III

Credit(s): 3

Art Studio Hour(s): 6

Provides continued exploration of techniques, materials, and concepts used in opaque painting processes in oil or acrylic painting, with emphasis on composition and content development.

ART 261 - Ceramics II

Credit(s): 3

Art Studio Hour(s): 6

A continuation of ART 161, this course emphasizes skill, technique and form.

ART 262 - Ceramics III

Credit(s): 3

Art Studio Hour(s): 6

Encourages students to develop an individual style of wheel thrown and hand built ceramic forms with continuing involvement in surface treatment.

ART 264 - Ceramic Sculpture

Credit(s): 3

Art Studio Hour(s): 6

Explores a variety of processes to create three-dimensional images in clay. Focuses on hand-built sculptures, without using a potter's wheel and relying on very basic tools. Encourages creative experimentation and engaging in the process.

ART 265 - Sculpture II

Credit(s): 3

Art Studio Hour(s): 6

Develops an understanding and focus on manipulation of three-dimensional form, with greater concentration on individual creativity and style.

ART 275-277 - Special Topics

Credit(s): 0-12

Provides the students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ART 280 - Internship

Credit(s): 1-12

Internship Hour(s): 1-12

Prerequisite(s): Approval of the department chair.

Provides the opportunity for students to gain supervised occupational experience in any of the disciplines involving the visual arts, including, but not limited to, gallery or museum administration and graphic design. Instruction is coordinated by the on-site supervisor and instructor and is totally based on the student's occupational experience plan.

ART 281 - Capstone: Studio Art II

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): Approval of the department chair.

This course is a continuation of Studio Art for advanced students to pursue individual advanced work in any area such as Drawing, Ceramics, Sculpture, Painting and Watercolor for a combination of any two areas with the purpose of enhancing their portfolio.

ART 289 - Capstone

Credit(s): 2

Art Studio Hour(s): 4

Prerequisite(s): Approval of Art department chair.

Provides a demonstrated culmination of learning within a given program of study.

Astronomy

AST 101 - Astronomy I With Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on the history of astronomy, naked-eye sky observation, tools of the astronomer, contents of the solar system and life in the universe. Incorporates laboratory experience.

AST 102 - Astronomy II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): AST 101.

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology

and relativity. Stellar phenomena including white dwarves, black holes will be explored. Incorporates laboratory experience.

AST 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

AST 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Automotive Service Technology

ASE 101 - Auto Shop Orientation

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers safety instruction in the shop and on the automobile. Emphasis on the proper use and care of test equipment, precision measuring and machining equipment, gaskets, adhesives, tubing, wiring, jacks, presses, and cleaning equipment and techniques.

ASE 102 - Introduction to the Automotive Shop

Credit(s): 2

Lecture Hour(s): 2

Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.

ASE 103 - Auto Maintenance I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the basics of how various systems on the automobile operate, maintenance requirements, and financial concerns related to operating and maintaining an automobile.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

ASE 110 - Brakes I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Introduces the basic theory of automotive braking systems including operation, diagnosis, basic repair of disc and drum friction assemblies, and basic hydraulic braking systems. This course meets MLR/AST/MAST program accreditation requirements.

ASE 111 - Automotive Brake Service II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): ASE 110.

Covers diagnostics, test procedures, and repair to automotive foundation braking system. This course also introduces the components, types of Antilock Braking Systems (ABS), and traction control systems of current vehicles. This course meets MLR/AST/MAST program accreditation requirements.

ASE 120 - Basic Auto Electricity

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Introduces vehicle electricity, basic electrical theory, circuit designs, and wiring methods. This course focuses on multimeter usage and wiring diagrams. This course meets MLR/AST/MAST requirements.

ASE 122 - Automotive Electrical Safety Systems

Credit(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation of electrical systems including vehicles safety concerns of vehicle lighting systems, Supplemental Inflatable Restraints (SIR), windshield wipers, driver warning systems, and vehicle accessories. This course meets MLR/AST/MAST program requirements.

ASE 123 - Starting and Charging System

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of a vehicle battery, testing, service, and repair of starting and charging systems including voltage testing, draw testing. This course meets MLR/AST/MAST program requirements.

ASE 124 - Advanced Ignition System Diagnosis & Repair

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various ignitions systems on customer vehicles.

ASE 130 - General Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers how to perform basic engine diagnosis to determine condition of engine including engine support systems. This course meets MLR/AST/MAST requirements.

ASE 132 - Ignition System Diagnosis and Repair

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems.

ASE 134 - Automotive Fuel and Emissions Systems I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive fuel emission control systems, filter systems, and spark plugs. This course also includes maintenance to Diesel Exhaust Fluid (DEF) systems.

ASE 140 - Suspension and Steering I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on diagnosis and service of suspension and steering systems and components. This course meets MLR/AST/MAST requirements.

ASE 141 - Suspension and Steering II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers design, diagnosis, inspection, service of suspension, and steering systems used on light trucks and automobiles including power steering and Supplemental Restraint System (SRS) service. This course meets AST/MAST requirements.

ASE 151 - Automotive Manual Transmission/Transaxles & Clutches

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the diagnosis and repair of automotive manual transmissions, transaxles, clutches, and related components. This course meets AST/MAST requirements.

ASE 152 - Manual Transmission, Transaxles and Clutches II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel and all-wheel drive units.

ASE 153 - Automotive Drive Axle Overhaul

Credit(s): 1

Vocational Lab Hour(s): 1.50

Teaches the student skills to check, inspect, and replace parts necessary to rebuild differential assembly.

ASE 154 - Manual Transmission/Transaxle Diagnosis and Repair

Credit(s): 1

Vocational Lab Hour(s): 1.50

Covers operation, diagnosis and repair procedures of manual transmission and transaxle assemblies.

ASE 160 - Automotive Engine Removal & Installation

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Focuses on the service of cylinder head, valve-train components, and cooling system components including engine removal, re-installation, and re-mounting systems. This course meets MLR/AST/MAST requirements.

ASE 161 - Engine Repair & Rebuild

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the disassembly, diagnosis and reassembly of the automotive engine. Topics include the diagnostic and repair procedures for the engine block and head assemblies.

ASE 162 - Automotive Engine Repair

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers engine sealing requirements and repair procedures including engine fasteners, bolt torque, repair of fasteners, cooling system, and basic engine maintenance. This course meets AST/MAST requirements.

ASE 163 - Automotive Component Removal and Replacement

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Practical methods of removal and installation of engines, transmissions, transfer cases, clutch assemblies, bolt, and thread repair.

ASE 165 - Automotive Machining

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the machining processes used to repair or build the automotive engine, using up-to-date machines and equipment to recondition connecting rods, engine blocks, cylinder heads, valves, flywheels, crankshafts, pistons, and also including brake drum and rotor service.

ASE 170 - Laboratory Experience I

Credit(s): 1-6

Vocational Lab Hour(s): 1.50-9

Continues to build upon the principles that are expected to be understood by students.

ASE 171 - Laboratory Experience II

Credit(s): 1-6

Vocational Lab Hour(s): 1.50-9

Continues to build upon the principles that are expected to be understood by students.

ASE 172 - Laboratory Experience III

Credit(s): 1-6

Vocational Lab Hour(s): 1.50-9

Continues to build upon the principles that are expected to be understood by students.

ASE 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ASE 210 - Automotive Power and ABS Brake Systems

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the operation and theory of the modern automotive braking systems including the operation, diagnosis, service, and repair of the anti-lock braking systems and power assist units. This course also covers the machining operations of today's automobile brake systems. This course meets AST/MAST requirements.

ASE 220 - Specialized Electronics Training

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Provides a systematic approach to automotive electrical and electronic systems. This course applies electrical principles to semiconductors and microprocessors commonly found in automobiles and covers diagnostic procedures that have applications to present and future automotive electronics and electrical systems.

ASE 221 - Auto/Diesel Body Electrical

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

ASE 231 - Auto/Diesel Computers

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and laboratory experiences in the inspection and testing of typical computerized engine control systems.

ASE 233 - Auto Fuel Injection and Emissions Systems II

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

ASE 234 - Advanced Automotive Emissions

Credit(s): 2

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 0.75

Provides laboratory experiences with a variety of customer work in the areas that the student received training during previous automotive classes.

ASE 235 - Drivability Diagnosis

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Focuses on diagnostic techniques and the use of diagnostic scan tools, oscilloscopes, lab scopes, multi-meters, and gas analyzers.

ASE 236 - Advanced Drivability Diagnosis/Repair

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on lecture and laboratory experiences in the inspection, testing and repair of typical computerized engine control systems on customer vehicles.

ASE 240 - Suspension and Steering III

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

ASE 250 - Automatic Transmission/Transaxle Service

Credit(s): 1

Lecture Hour(s): 1

Focuses on practical methods of maintaining, servicing, and performing minor adjustments on an automatic transmission and transaxle. This course meets MLR/AST/MAST requirements.

ASE 251 - Automotive Transmission and Transaxle Repair

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation including removal, installation, and replacement of transmission/transaxle and components. This course meets AST/MAST requirements.

ASE 252 - Advanced Automatic Transmissions/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the diagnosis, repair, and rebuild of automatic transmissions and transaxles including the hydraulic, electronic, and mechanical components. This course meets MAST requirements.

ASE 253 - Advanced Manual Transmission/Transaxles

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles, clutches and their related components on customer vehicles.

ASE 260 - Advanced Engine Diagnosis

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors related to customer vehicles.

ASE 264 - Introduction Automotive Heating and Air Conditioning

Credit(s): 1

Vocational Lab Hour(s): 1.50

Covers basic operation of heating and air conditioning components. This course meets MLR/AST/MAST requirements.

ASE 265 - Heating and Air Conditioning Systems

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

ASE 275-277 - Special Topics

Credit(s): 0-12

Provides the student with a vehicle to pursue in-depth exploration of Special Topics of interest.

ASE 280 - Internship: Basic Electrical and Engine Performance**Credit(s): 1****Internship Hour(s): 3**

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

ASE 281 - Internship: Basic Heavy Duty and Power Train**Credit(s): 1****Internship Hour(s): 3**

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

ASE 282 - Internship: General (Summer)**Credit(s): 1****Internship Hour(s): 3**

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

ASE 283 - Internship: Advanced Electrical & Engine Performance**Credit(s): 1****Internship Hour(s): 3**

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track. The student registers for and takes the (ASE) Automotive Service Excellence based tests for engine performance and electrical systems.

ASE 284 - Internship: Advanced Heavy Duty & Power Train**Credit(s): 1****Internship Hour(s): 3**

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (FAST) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track they are enrolled in. The student registers for and takes the ASE-Automotive Service Excellence based test for brake systems and suspension and steering.

ASE 285 - Independent Study**Credit(s): 1-6****Vocational Lab Hour(s): 1.50-9**

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

ASE 287 - Cooperative Education

Credit(s): 1-9

Internship Hour(s): 3-27

Develops practical objectives assigned by an automotive employer providing an on-the-job learning experience at an approved automotive repair facility.

Barber

BAR 103 - Introduction to Hair & Scalp

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of hair, scalp treatments and shampoos. Focuses on recognition and treatment of disorders of hair and scalp, product knowledge and proper massage techniques to help control these disorders and cleanse the hair and scalp. Covers terminology dealing with hair structure scalp and hair disorders. Training is provided in a lab or classroom setting.

BAR 107 - Introduction to Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 - Intermediate Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 166 - Introduction to Facial Massages & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes basic understanding of facial massage manipulations and the study of skin in both practical and theory applications. Covers the benefits derived from proper facial massage and a good skin care routine.

BAR 167 - Intermediate Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on practical application dealing with anatomy, skin disorders, skin types and facial shapes. Students help patrons select proper skin care treatments

BAR 207 - Advanced Shaving, Honing & Stropping

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Board license exam.

BAR 266 - Advanced Facial Massage & Skin Care

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Emphasizes anatomy, skin disorders, skin types and facial shapes. Students guide patrons on selection of proper skin care treatments. Covers student preparation for State Board licensing examination on theory and practical procedures.

Biology

BIO 105 - Science of Biology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science – a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors.

BIO 106 - Basic Anatomy and Physiology

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program, and the Medical Office Technology Program.

BIO 111 - General College Biology I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): ENG 121

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. The course includes laboratory experience.

BIO 112 - General College Biology II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Corequisite(s): ENG 121.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 116 - Introduction to Human Disease: GT-SC2

Credit(s): 3

Lecture Hour(s): 3

Focused analysis of the causes and mechanics of human illness and death will be presented for each of the major human body systems. Selected diseases will be studied in greater detail including etiology, pathogenesis, epidemiology, sociology, and therapy.

BIO 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations and dissection. This is the first semester of a two-semester sequence.

BIO 202 - Human Anatomy and Physiology II with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations and dissection. This is the second semester of a two-semester sequence.

BIO 203 - Advanced Human Anatomy

Credit(s): 2

Lecture Hour(s): 1

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of BIO 201 and BIO 202 with a grade of "C" or better. CHE 101 strongly

recommended.

Examines the gross anatomical structure of the human body and the relationship between form and function. Students will prospect a human cadaver. Systems covered will include integument, digestive, respiratory, skeletal, muscular, reproductive, endocrine, lymphatic, urinary, nervous and cardiovascular. This is a course designed for allied health, education, biology and other students who wish to obtain advanced knowledge of human anatomy. Requires hands-on laboratory experience.

BIO 204 - Microbiology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): BIO 111.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease.

BIO 216 - Human Pathophysiology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, BIO 202

Focuses on the alterations in physiological, cellular and biochemical processes, the associated homeostatic response, and the manifestations of disease. Prior knowledge of cellular biology, anatomy and physiology is essential for the study of pathophysiology.

BIO 269 - Nucleic Acid Techniques and Molecular Cloning

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of BIO 111, CHE 111, and MAT 121 with a grade C or better.

Introduces Recombinant DNA technology as used in Biomedical Research. Covers basic information on the structure and function of DNA as a genetic material before students are guided through a research project involving the isolation and sequence analysis of a gene. Students perform hands-on laboratory techniques on non-infectious material to include PCR, gel electrophoresis, molecular cloning and automated DNA sequencing.

BIO 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Business

BUS 102 - Entrepreneurial Operations

Credit(s): 3

Lecture Hour(s): 3

Explores the essential requirements for starting and operating a business. This course covers basic concepts of business

law, marketing, finance and operations. It guides the development of an effective business plan and prepares students to launch and sustain their own businesses.

BUS 115 - Introduction to Business

Credit(s): 3

Lecture Hour(s): 3

Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

BUS 116 - Personal Finance

Credit(s): 3

Lecture Hour(s): 3

Surveys the basic personal financial needs of most individuals. Emphasizes the basics of budgeting and buying, saving and borrowing money, the intricacies of home ownership, income tax and investments, and the wise use of insurance, wills and trusts.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

BUS 118 - Business Survival Skills

Credit(s): 3

Lecture Hour(s): 3

Provides an overall perspective for the student to understand the current domestic and world business environment and how the student as an employee fits into that environment. Roles and responsibilities of the business and the employees will be studied especially as they relate to alternatives for increasing positive impact in the workplace. The focus will be on practical skills application.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

BUS 121 - Basic Workplace Skills

Credit(s): 1

Lecture Hour(s): 1

Examines techniques for communicating effectively on the job including both verbal and written communication; identifies the roles of individuals and companies and necessary critical thinking and problem solving skills; examines relationship skills, effective self-presentation, and workplace issues such as sexual harassment, stress, and substance abuse.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

BUS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

BUS 181 - Internship

Credit(s): 0-6

Internship Hour(s): 0-18

Provides students with hands-on training in their career field. Occurs in a business setting arranged through a Student Work Experience (SWE)/Internship Coordinator, or by utilizing a current employment organization. Student is expected to work a minimum of 7.5 hours per week. Students attend 3 Seminars during the semester of enrollment. Class utilizes cooperative work experience or project methods depending on the individual situation.

BUS 216 - Legal Environment of Business

Credit(s): 3

Lecture Hour(s): 3

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

BUS 217 - Business Communication & Report Writing

Credit(s): 3

Lecture Hour(s): 3

Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

BUS 226 - Business Statistics

Credit(s): 3

Lecture Hour(s): 3

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression and correlation. Intended for the business major.

BUS 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

BUS 287 - Cooperative Education

Credit(s): 0.50-6

Internship Hour(s): 1.50-18

Prerequisite(s): Department advisor/chair approval.

Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work stations related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

Business Technologies

BTE 100 - Computer Keyboarding

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Designed for students who have minimal or no keyboarding skills. Introduces the touch method of keyboarding, as well as the basic operation and functions of the equipment. Emphasizes learning the alphanumeric keyboard, proper technique, and speed control.

BTE 102 - Keyboarding Applications I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): BTE 100 or Instructor or Department Chair Approval.

Designed for students with minimal keyboarding skills. Introduces letters, tables, memos, and manuscripts. Emphasizes speed and accuracy.

BTE 103 - Keyboarding Applications II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s)/Corequisite(s): BTE 102, or equivalent assessment test score, or Department Chair Approval.

Reinforces basic keyboarding formats and procedures. Productivity and decision-making skills are exercised. Emphasizes speed and accuracy.

BTE 108 - Ten-Key by Touch

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Introduces touch control of the ten-key pad. Emphasizes the development of speed and accuracy using proper technique.

BTE 111 - Keyboarding Speed Building I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): BTE 100 or instructor approval, or Department Chair Approval.

Designed to increase speed and improve accuracy in keyboarding on the PC through the use of correct techniques and concentrated effort.

BTE 112 - Keyboarding Speed Building II

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): BTE 111.

Continues the skill building sets from BTE 111. This course is designed to further increase speed and improve accuracy in keyboarding on the PC through the use of correct techniques and concentrated effort.

BTE 116 - File Management

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Provides instruction principles, organization, and procedures for alphabetic, numeric, subject, chronological and geographic systems of filing.

BTE 120 - Introduction to Business Practices

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Examines business practices in the workplace.

BTE 125 - Records Management

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): Department advisor/chair/instructor approval.

Instructs on how records are created, stored and retrieved. Covers the basic filing rules - classifying, indexing, coding, storing, and retrieving as applied to basic methods - alphabetic, chronological, subject, numeric, and geographic.

Emphasizes hands-on records management through the use of simulations, which includes manual and/or computer software.

BTE 128 - Legal Terminology

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Allows students to develop a basic legal terminology background. Students learn the state, federal, and local court structures.

BTE 156 - Business Mathematics with Calculators

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): Department Chair Approval.

Covers basic business mathematics using the touch system on electronic calculators to solve business problems.

BTE 166 - Business Editing Skills

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 113, or Department Chair Approval.

Provides proofreading techniques and reviews spelling, punctuation, grammar and word processing formats on various types of business documents and worksheets.

BTE 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

BTE 202 - Office Simulation I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Provides experience in using in-basket exercises typical of those occurring in an office operation. It focuses on procedures and computer skills needed for successful performance in the workplace.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

BTE 203 - Office Simulation II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Provides the student the opportunity to demonstrate and perfect the computer skills, organizational skills, and communication skills required to secure employment and/or advancement in the workplace.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

BTE 204 - Keyboarding Applications III

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): BTE 103, BTE 166 and 45 wpm, or Department Chair Approval.

Produces mailable computer printouts from straight-copy, rough-draft, and simulated office projects and develops the ability to make decisions without direct supervision.

BTE 211 - Legal Formatting

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Introduces keyboarding and formatting legal correspondence, legal instruments and court documents and provides an introduction to legal procedures.

BTE 213 - Introduction to Legal Office Procedures

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Simulates a typical legal office and acquaints students with the tasks and responsibilities performed in a legal office environment and shows how these tasks relate to the court system.

BTE 225 - Office Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Emphasis is placed on functions of the office. Includes office organization, work in the office, office layout, equipment and supplies, procurement and control, work flow, forms design, record storage and retrieval systems, personnel administration and problems, and government control.

BTE 229 - Legal Transcription

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): BTE 128, BTE 103, or Department Chair Approval.

Prepares students to work as legal transcriptionists. Students transcribe a variety of legal documents and develop a legal vocabulary.

BTE 238 - Legal Office Procedures

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): 40 wpm, BTE 128

Designed for students who will be working in a legal office either in the private or the public sector. Covers fundamental office procedures found in both general and specialized law offices.

BTE 239 - Billing Systems: PC Law

Credit(s): 3

Lecture Hour(s): 3

Introduces the fundamental applications of PC Law software as used for time, billing, and accounting.

BTE 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

BTE 287 - Cooperative Education/Internship

Credit(s): 0.50-6

Cooperative Education Hour(s): 0.75-9

Prerequisite(s): Department Chair Approval.

Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work sites that are related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

Carpentry

CAR 100 - Introduction to Carpentry

Credit(s): 1

Lecture Hour(s): 1

Provides a basic introduction to construction work for all crafts. This course specifically applies to construction sites.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 101 - Basic Safety

Credit(s): 1

Lecture Hour(s): 1

An overview of safety concerns and procedures in the construction field.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 102 - Hand and Power Tools

Credit(s): 1

Lecture Hour(s): .25

Vocational Lab Hour(s): 1.12

Focuses on basic hand and power tools including stationary tools. Emphasizes a hands-on approach to proper and safe use of these tools as it applies to the construction environment and is taught in conjunction with a lab or framing class.

CAR 103 - Carpentry Basics

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Provides a basic introduction to construction work for all crafts, safety concerns and procedures, and the safety and use of hand and power tools. This course specifically applies to construction work.

CAR 105 - Job Site Layout and Blueprint Reading

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Introduces blueprint reading and how they apply to the construction site. Includes in-depth introduction to site layout (materials and methods).

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 121 - Floor Framing

Credit(s): 1

Lecture Hour(s): 0.25

Vocational Lab Hour(s): 1.12

Covers framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 122 - Wall Framing

Credit(s): 1

Lecture Hour(s): 0.25

Vocational Lab Hour(s): 1.12

Focuses on the procedures for laying out and framing walls and ceilings, including roughing-in door and window openings, construction corners and partition Ts, bracing walls and ceilings, and applying sheathing.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 123 - Roof Framing

Credit(s): 1

Lecture Hour(s): 0.25

Vocational Lab Hour(s): 1.12

Describes the various kinds of roofs and contains instructions for laying out rafters for gable roofs, hip roofs and valley intersections. Coverage includes both stick-built and truss-built roofs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 130 - Windows and Exterior Doors

Credit(s): 1

Lecture Hour(s): 1

Describes the various types of windows, skylights and exterior doors and provides instructions for installing them. Includes instructions for installing weather-stripping and locksets.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 140 - Stair Construction/layout

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Covers the various types of wooden stairs used in residential and commercial construction, along with procedures for laying out stairs, cutting out stringers and installing and finishing stairs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAR 170 - Clinical: Construction Lab I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 171 - Clinical: Construction Lab I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 172 - Clinical: Construction Lab I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CAR 180 - Internship

Credit(s): 5

Internship Hour(s): 15

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 business location and with the direct guidance of the instructor.

CAR 181 - Internship

Credit(s): 6

Internship Hour(s): 18

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 business location and with the direct guidance of the instructor.

CAR 270 - Clinical: Construction Lab I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 271 - Clinical: Construction Lab I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 272 - Clinical: Construction Lab I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CAR 280 - Internship

Credit(s): 5

Internship Hour(s): 15

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 business location and with the direct guidance of the instructor.

CAR 281 - Internship

Credit(s): 6

Internship Hour(s): 18

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 business location and with the direct guidance of the instructor.

Chemistry

CHE 101 - Introduction to Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background.

CHE 102 - Introduction to Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 101.

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included.

CHE 104 - Concepts of Chemistry I

Credit(s): 4

Academic Lab Hour(s): 2

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, and gas laws. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background. This course has no lab and may not be transferable. Equivalent of CHE 101 lecture.

CHE 105 - Chemistry in Context with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Covers the study of measurements, matter, molecules, atoms, chemical bonding, nomenclature, energy, acids, bases, and nutrition. Course work examines chemistry in the modern world and surveys the current knowledge as well as the conceptual framework of the discipline. Chemistry as a science is explored, as is the impact of chemistry on society. This course includes laboratory experience and is designed for non-science majors.

CHE 109 - General, Organic, and Biochemistry

Credit(s): 4

Lecture Hour(s): 4

Focuses on fundamentals of inorganic, organic and biochemistry primarily for students in health science, non-science majors and/or students in the occupational and health related career areas. Includes the study of measurement, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base chemistry, gas laws, condensed states of matter and nuclear chemistry, nomenclature of organic compounds, properties of different functional groups, nomenclature of various biological compounds, their properties and biological pathways. This course has no lab and may not be transferable.

CHE 111 - General College Chemistry I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121, CHE 101.

Corequisite(s): ENG 121.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments.

CHE 112 - General College Chemistry II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): CHE 111, ENG 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

CHE 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CHE 211 - Organic Chemistry I with Lab

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of CHE 112 with a grade of "C" or better.

Focuses on compounds associated with the element carbon including structure and reactions of aliphatic hydrocarbons and selected functional group families. The course covers nomenclature of organic compounds, stereochemistry, reaction mechanisms such as SN1, SN2, E1 and E2. Laboratory experiments demonstrate the above concepts plus the laboratory techniques associated with organic chemistry.

CHE 212 - Organic Chemistry II with Lab

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): Successful completion of CHE 211 with a grade of "C" or better.

Explores the chemistry of carbon-based compounds, their reactions and synthesis including the structure, physical properties, reactivities, and synthesis of organic functional groups not covered in Organic Chemistry I. The course explores functional groups including alcohols, ethers, aromatics, aldehydes, ketones, amines, amides, esters, and carboxylic acids and the reactions and reaction mechanisms of aromatic compounds. An introduction to biochemical topics may be included if time permits. Laboratory experiences demonstrate the above concepts and the laboratory techniques associated with organic chemistry.

CHE 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CHE 285 - Independent Study

Credit(s): 0-12

Independent Study Hour(s): 0-24

Prerequisite(s): Approval of department chair.

Provides the opportunity for the highly motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. Allows a student to complete a course in a semester when the course has not been offered or has been canceled. The option to make independent study available is at the discretion of qualified faculty and the department chair. The student is limited to the number of independent study courses taken per semester.

College Composition & Reading

CCR 091 - College Composition and Reading

Credit(s): 1

Vocational Lab Hour(s): 1.50

Topics covered in the course include those defined in CCR 092 and/or any foundational skills needed by the student. Any student enrolled in CCR 091 is required to co-enroll in CCR 092. Developmental Grading

CCR 092 - College Composition and Reading

Credit(s): 5

Lecture Hour(s): 5

Integrates and contextualizes college level reading and writing. Students will read and understand complex materials and respond to ideas and information through writing informative and/or persuasive texts. Developmental grading (D).

CCR 093 - Studio D

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s)/Corequisite(s): Linked 100 level course in Communication, Science, Social Science or Arts and Humanities.

Integrates and contextualizes reading and writing strategies tailored to a co-requisite 100-level course within one or more of the four discipline strands. The four discipline strands are defined as: Communications, Science, Social Science, and Arts and Humanities. Non-GT courses are not eligible for this consideration. Students will read and understand complex discipline-specific materials, and respond to ideas and information through writing informative and/or persuasive texts. Developmental grading (D).

CCR 094 - Studio 121

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): Linked ENG 121.

Integrates and contextualizes reading and writing strategies tailored to co-requisite ENG 121 coursework. Students will read and understand complex materials, and respond to ideas and information through writing informative and/or persuasive texts. Developmental grading (D).

Communication

COM 105 - Career Communication

Credit(s): 3

Lecture Hour(s): 3

Develops skills needed in obtaining and keeping a job. Includes job searching, applications, resumes, interviews, and the dynamics of customer, peer and managerial relationships. Emphasizes speaking, writing, listening, critical reading skills and vocabulary development essential to the employment world.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

COM 115 - Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level or consent of the instructor.

Combines the basic theories of communication with public speech performance skills. Emphasis is on speech preparation, organization, support, audience analysis, and delivery.

COM 125 - Interpersonal Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the communication involved in interpersonal relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict. GT-SS3

COM 130 - Communication and Popular Culture

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the ENG 121 level.

Engages students in four key methodological approaches taken by Communication Studies scholars as a means to empower students with the critical skills to understand popular culture texts more mindfully. Students will place the history of popular culture within a broader context of U.S. history, analyze a variety of texts that fall into the category of "arts and humanities", and engage in methods of critical thinking.

COM 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

COM 215 - Gender Communications

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Examines contemporary theories and research in gendered communication. The course will involve reading and discussion in areas of gender differences in self-perception, social and media images of men and women, language usage and nonverbal behavior differences among genders. Relevant concepts include verbal communication, nonverbal communication, context, language, perception, and conflict.

COM 216 - Advanced Public Speaking

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the continued study of rhetorical theory and analysis as it relates to public speaking.

COM 217 - Group Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation. GT-SS3

COM 220 - Intercultural Communication: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides a global view of communication across cultures and brings an awareness of how perception, language, race, verbal, and nonverbal communication impact our behaviors, messages, and interactions. Emphasis is on developing effective and ethical cross-cultural communication skills, while also building an appreciation for different cultures. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

COM 226 - Oral Interpretation

Credit(s): 3

Lecture Hour(s): 3

Exposes the student to the artistic, interpretive, and communicative potential to be found in the reading and performance of great literature and rhetoric such as is found in prose, poetry, drama.

COM 262 - Communicating with Impossible People

Credit(s): 1

Lecture Hour(s): 1

Introduces participants to the concepts regarding communication with "impossible" people and techniques to deal with them more effectively. Emphasizes active participation in skill-building activities.

COM 263 - Conflict Resolution

Credit(s): 1

Lecture Hour(s): 1

Focuses on handling conflict productively. Students gain insights into the roots of conflict and engage in skill practice in mediating interpersonal conflicts. The emphasis is on conflict prevention.

COM 264 - Negotiation

Credit(s): 1

Lecture Hour(s): 1

Focuses on protecting your interests and those of others while preserving relationships. Examines role-playing and other dynamic techniques and incorporates negotiation skills for personal and professional situations.

COM 268 - Problem Solving

Credit(s): 1

Lecture Hour(s): 1

Focuses on solving problems in our personal and professional lives and developing the ability to think and act creatively in responding to a variety of situations. Introduces several different perspectives for group and individual problem solving and explores real situations and simulations.

COM 269 - Leadership

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the essential skills and attributes of leadership. Through lectures, activities and readings, the students will understand the differences between leadership and management, how theory leads to practice, and the appropriate leadership style to use according to the situation.

COM 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

COM 280 - Internship

Credit(s): Variable 1-12

Internship Hour(s): Variable 3-36

Prerequisite(s): Department approval required

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 business location and with the direct guidance of the instructor.

COM 285 - Independent Study

Credit(s): Variable 0-12

Lecture Hour(s): Variable 0-12

Prerequisite(s): Department approval required.

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

COM 289 - Capstone

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Must Have nine credits completed with a grade of "C" or higher towards the Certificate of Professional Communication or approval of the English & communication Department Chair.

Provides a demonstrated culmination of learning within a given program of study.

Computer Aided Drafting

CAD 100 - Computer Aided Drafting/2D I

Credit(s): 3

Lecture Hour(s): 3

Covers linetype identification, use of lineweights, file management, prototype/template creation using AutoCAD.

Covers interpretation of industry standards in dimensioning, symbology, drawing notes, scales, and reading working drawings. Architecture, engineering, design related, civil/survey, manufacturing, HVAC, and welding are industries discussed in this course.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAD 101 - Computer Aided Drafting/2D I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on basic computer aided drafting skills using the AutoCAD software. Includes file management, Cartesian

coordinate system & dynamic input, drawing templates, drawing aids, linetype and lineweights, layer usage, drawing & editing geometric objects, polylines & splines, array, text applications, creating tables, basic dimensioning and Help access.

CAD 102 - Computer Aided Drafting/2D II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Focuses on intermediate 2D Computer aided drafting skills using the AutoCAD software. Includes blocks, wblocks & dynamic blocks, hatching, isometric drawings, advanced dimensioning and dimension variables, layouts, paper space and viewports, templates, external references, attributes, raster images, & printing/plotting.

CAD 115 - Sketchup

Credit(s): 3

Lecture Hour(s): 3

Introduces techniques and common practices of 3D modeling using Sketchup software. Focuses on the creation and editing of virtual three-dimensional forms and volumes and the organization of their elements through the various features of the software. Includes applying material and textures, changing the appearance of models with styles and shadows and introduces the basic techniques of presenting and sharing the 3D model.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CAD 153 - Introduction to Crea Basics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD operation experience.

Introduces basic Creo software and its operations such as part, assembly, and drawing creation. The student learns to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models. Creo is a 3D Parametric Solid Modeling program.

CAD 155 - Creo Advanced

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 153.

Introduces advanced applications of the 3D parametric software Creo. Focuses on advanced part creation, drawing manipulation, advanced assembly techniques, documentation of bill of materials and parts lists, rendering, animation, and part and assembly analysis.

CAD 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CAD 202 - Computer Aided Drafting/3D

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 101 or instructor approval.

Focuses on construction of three-dimensional objects using the AutoCAD software. Includes mesh & surface modeling, solid modeling, extrusions, Boolean operations, 3D editing, 3D views, rendering, materials, advanced lighting, and walkthrough, flyby animations of 3D Solids to 2D Layouts.

CAD 219 - 3DS Max

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 101 or Instructor approval

Introduces 3D model creation and editing, rendering and animation using the Autodesk 3DS Max software. Focuses on 3D geometry, texture mapping, lighting, camera placement, shading, photo-realistic rendering, animation techniques, and walk through animations.

CAD 220 - Advanced 3DS Max Character Modeling

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 219.

Focuses on advanced 3D geometry and character construction, animation and rendering techniques using Autodesk 3D Max software. Emphasis will include 3D geometry manipulation, character/bone/biped constructions, animation and video post-production of 3D animations.

CAD 255 - Solidworks/Mechanical

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces parametric feature-based solid modeling 3D concepts to build confidence in 3D thinking and progresses to three-dimensional parameters. The student learns to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models.

CAD 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CAD 289 - Capstone

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides a demonstrated culmination of learning within a given program of study.

Computer Information Systems

CIS 101 - Alternative Input/Output for Computers

Credit(s): 1

Vocational Lab Hour(s): 1.50

Focuses on teaching alternative methods for interacting with a computer. Individualized for each student, the course covers such programs as Dragon NaturallySpeaking, Dragon Dictate, or Job Access with Speech (JAWS). It is designed for students who have little or no previous computer experience.

CIS 102 - Computer Assistive Technology

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces assistive technology and alternative methods for utilization of computer systems. Depending upon student need or interest, the student selects the assistive technology or method. Options include voice recognition, screen readers, screen enlargement, keyboard modification, word predication, reading enhancement programs and alternative data entry methods.

CIS 104 - Word Processing with Assistive Technology

Credit(s): 3

Vocational Lab Hour(s): 4.50

Provides training in the functions, features and uses of assistive technology and alternative methods. Covers the introduction of standard word processing features needed for proper presentation of college or business papers and the methodology to successfully use the assistive technology/alternative method in continuing educational or employment environments.

CIS 107 - Voice Recognition: Dragon

Credit(s): 1

Vocational Lab Hour(s): 1.50

Teaches the basics of voice recognition software for word processing and other related office applications. Benefits include the reduction of repetitive stress injuries, increasing accuracy, and saving report time preparation.

CIS 109 - Management Software and Technical Applications

Credit(s): 1

Vocational Lab Hour(s): 1.50

Introduces the use of computer management software and the concepts of software applicable to various technology programs. Covers features of selected software, terminology related to hardware, software and online resources (which include PC, word processing, databases, spreadsheets and e-mail). Provides opportunities for practical application of computer skills.

CIS 110 - Intro to Computing Technology (Device)

Credit(s): 1

Vocational Lab Hour(s): 1

Introduces basic computing technology with an emphasis on document creation and storage. Use of technology for email, web surfing, and access to course materials is included.

CIS 115 - Introduction to Computer Information Systems

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development and computer operations. Introduces computer applications.

CIS 118 - Intro to PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces basic computer terminology, file management and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases and presentation graphics. Includes the use of a web browser to access the Internet.

CIS 155 - PC Spreadsheet Concepts: (Software Package)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Exposes the student 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.

CIS 167 - Desktop Publishing: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the concepts and applications for desktop publishing using word processing software. Emphasizes page layout and design with techniques for incorporating text and graphics and final production of printed documents.

CIS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CIS 178 - Seminar/Workshop

Credit(s): 1-6

Seminar Hour(s): 1-6

Provides students with an experiential learning experience.

CIS 218 - Advanced PC Applications

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 118 or Instructor approval.

Covers the advanced capabilities of a PC software applications suite. Emphasizes solving business problems by

integrating data from all of the software applications that facilitate the production of useful information. Printed documents, reports, slides and forms are produced to communicate information.

CIS 220 - Fundamentals of Unix

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the structure and fundamentals of the Unix operating system including the file system and file processing, various utility programs, shell, multi-user operation, text processing, and communications.

CIS 223 - Linux

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces students to the concepts of installing, configuring, and managing the Linux operating system. Topics covered include working with various desktops, use of filesystem commands, and management of user and group permissions.

CIS 240 - Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language (SQL) for databases.

CIS 241 - Advanced Database Design and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 240.

Continues work started in CIS 240 - Database Design and Development. Surveys the two common types of databases, relational and object oriented. Covers transactions and concurrency, database administration and backup and database applications.

CIS 243 - Introduction to SQL

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces Structured Query Language (SQL) including creation of database structures and how to store, retrieve, and manipulate data in a relational database. This course also covers creating tables and views, using indexes, and developing stored procedures and triggers.

CIS 268 - Systems Analysis and Design I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 and one programming language course.

Introduces the student to the materials, techniques, procedures, and human interrelations involved in developing

computer information systems. Includes the systems approach, fact gathering techniques, forms design, input/output, file design, file organization, various charting techniques, system audits on controls, project management, implementation and evaluation.

CIS 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CIS 287 - Cooperative Education

Credit(s): 1-12

Internship Hour(s): 3-36

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer work site supervisor.

CIS 289 - Capstone

Credit(s): 1-6

Internship Hour(s): 3-18

Serves as the Capstone course for CIS majors. Incorporates projects that allow students to develop advanced techniques and assemble information from different courses. Most projects will include the creation of interactive application programs for the non-computer user and require research beyond the classroom to prepare the student for entry-level employment in a variety of situations.

Computer & Networking Technology

CNG 104 - Intro to TCP/IP

Credit(s): 3

Lecture Hour(s): 3

Covers the basic elements of the Transmission Control Protocol and the Internet Protocol, the basic technologies that implement the Internet and computer networking. In addition to TCP and IP the course covers networking media, link layer, network layer and transport layer protocols. Also included are routing, broadcast, multicast and network address translation. IP version 4 and IP version 6 are both covered.

CNG 120 - A+ Certification Preparation

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 121 - Computer Technician I: A+

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Provides students with an in-depth look at personal computer hardware, introduces networking concepts, and covers operational procedures and troubleshooting, all of which are necessary 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. This course helps prepare you for the first CompTIA A+ Exam.

CNG 122 - Computer Technician II: A+

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CNG 121 or Department Chair Approval.

Provides students with an in-depth look at desktop and mobile Operating System support, maintenance and troubleshooting, and an overview of security concepts and interpersonal skills, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with current operating systems, including using common GUI and command line tools, registry editing, system backup and recovery, and advanced troubleshooting. This course helps prepare you for the second CompTIA A+ Exam.

CNG 124 - Networking I: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 125 - Networking II: Network +

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): CNG 124

Continues to provide students with the knowledge necessary to implement and support a network. Focuses on the vendor-independent networking skills and concepts that affect all aspects of networking. The Networking I and II: Network + courses prepare students for the Network + certification.

CNG 131 - Principles of Information Assurance

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, email, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery and business continuity. Computer forensics is introduced.

CNG 132 - Network Security Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the field of information security to prepare information systems students for their future roles as business decision-makers. The course presents a balance of the managerial and the technical aspects of information security. The concepts covered in this course should be helpful for students working towards the Certified Information Systems Security Professional (CISSP) certification.

CNG 133 - Network Security: Fire Walls and Intrusion Detection and Network Security**Credit(s): 3****Lecture Hour(s): 2****Vocational Lab Hour(s): 1.50**

Teaches students the basics of network firewall security. It covers basic installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting.

CNG 136 - Guide to Disaster Recovery**Credit(s): 3****Lecture Hour(s): 3****Prerequisite(s):** Department Chair Approval.

Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing a disaster recovery plan.

CNG 142 - Introduction to Cloud Computing Concepts**Credit(s): 3****Lecture Hour(s): 2****Vocational Lab Hour(s): 1.5**

Introduces fundamental content on cloud computing including system analysis, requirements, configuration, deployment, and testing. This course includes information on management, business continuity, security, maintenance, updating, and troubleshooting as related to cloud computing.

CNG 175-177 - Special Topics**Credit(s): 0-12**

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CNG 212 - Configuring Windows Server**Credit(s): 4****Lecture Hour(s): 3****Vocational Lab Hour(s): 1.50**

Provides students with the knowledge and skills that are required to install and configure a Microsoft Windows Server. This course helps prepare students for a MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate) exams.

CNG 224 - Microsoft Windows Wireless Network**Credit(s): 3****Lecture Hour(s): 2**

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or instructor approval.

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

CNG 242 - Cloud Computing

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Installs, configures and manages a cloud environment. Builds on knowledge of hypervisor and virtual machine environments.

CNG 243 - Cloud Security and Cyber Law

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Introduces concepts of cloud architecture, cloud security, and the law as it pertains to cloud deployment. Focuses on the mechanics of security in the cloud service models: Infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS).

CNG 251 - Anti Virus Concepts

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Prepares the student for virus eradication. Focuses on how viruses work, how they are designed and how viruses are written. Emphasizes virus eradication and cleaning.

CNG 254 - Data Encryption

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Exposes the student to data encryption models. Examines the differences between data storage including Microsoft, Novell Netware and UNIX. Includes encryption and data transmission. Covers encryption over various networks including the Internet.

CNG 256 - Vulnerability Assessment I

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CIS 220, CNG 124, and CNG 132.

Presents students with an introduction to vulnerability assessment. Vulnerability assessment skills are necessary to understand how companies address vulnerabilities in the business environment. Students gain a better understanding of how information technology security integrates into the corporate world and how a balance must be achieved between security and functionality.

CNG 257 - Network Defense and Counter Measure

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CNG 104 or Instructor approval.

Examines the tools, techniques and technologies used in the technical securing of information assets. This course provides in-depth information of the software and hardware components of Information Security and Assurance. Topics include firewall configurations, hardening Unix and NT servers, Web and distributed systems security and specific implementation of security modes and architectures. The curriculum maps to the Security Certified Network Professional (SCP) Network Defense and Countermeasures exam.

CNG 258 - Digital Forensics

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): CNG 124.

Corequisite(s): CIS 220.

Exposes the student to the field of digital computer forensics and investigation. This class provides the student with methods to properly conduct a digital forensics investigation including a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analyses.

CNG 260 - Cisco Network Associate I

Credit(s): 5

Lecture Hour(s): 5

Introduces the architecture, structure, functions, components and models of the Internet and other computer networks. Includes IP addressing and fundamentals of Ethernet concepts, media and operations.

CNG 261 - Cisco Network Associate II

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): CNG 260.

Introduces the architecture, components and operations of routers and switches.

CNG 262 - Cisco Network Associate III

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): CNG 261.

Explores the architecture, components and operations of routers and switches in a large and more complex network with advanced functionality.

CNG 263 - Cisco Network Associate IV

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): CNG 262.

Implements WAN technologies and network services required by converged applications in a complex switched and routed networks.

CNG 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Computer Science

CSC 119 - Introduction to Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on a general introduction to computer programming. This course emphasizes the design and implementation of structured and logically correct programs with good documentation. It is centered on basic programming concepts, including control structures, modularization, and data processing. A structured programming language is used to implement program designs. It emphasizes the writing of multiple programs following the software development process, from start to finish, including design, implementation, and testing.

CSC 120 - Problem Solving with Java

Credit(s): 3

Lecture Hour(s): 3

Provides an introductory level course in computer programming using a high level programming language. The course will cover design and development of simple software applications. Topics covered will include design of software from initial phase through coding phase, input and output of data, functions or methods, control structures, arrays and error handling.

CSC 129 - Introduction to Secure Coding

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 120

Focuses on introduction to secure coding. Emphasizes concepts, principles, and best practices of structured secure programs within security standards. Analysis of design of secure programming is stressed, including costs, threats, security concepts, policies, coding flaws, vulnerabilities, exploits, and code mitigation. Analysis of the design of legacy and contemporary object oriented languages is emphasized. Focuses on the application of secure coding principles, standards to resolve code flaws and vulnerabilities.

CSC 160 - Computer Science I: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 120.

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical

expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time.

CSC 161 - Computer Science II: (Language)

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 160 or instructor approval.

Introduces students to the discipline of computer science and programming. Algorithm development, data representation, logical expressions, sub-programs and input/output operations using a high-level programming language are covered. Intensive lab work outside of class time is required.

CSC 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CSC 225 - Computer Architecture/Assembly Language Programming

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Introduces concepts of computer architecture, functional logic, design and computer arithmetic. Focuses on the mechanics of information transfer and control within a computer system. Includes symbolic programming techniques, implementing high level control structures, addressing modes and their relation to arrays, subprograms, parameters, linkage to high level languages and the assembly process.

CSC 230 - C Programming: Platform

Credit(s): 3

Lecture Hour(s): 3

Prepares students to be a better programmer using the C programming language. C is a mid-level language whose economy of expression and data manipulation features allows a programmer to deal with the computer at a low level. The goal is to learn skills that are usable in many languages and understand what is happening at the machine level. The student should already understand the control structures selection, iteration, and subroutines (functions/methods).

CSC 240 - Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Java programming language and covers basic graphics, events/procedures, user interface and libraries. Enables the student to write and execute a variety of Java programs. Incorporates Java Applets into HTML.

CSC 241 - Advanced Java Programming

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 240 or instructor approval.

Continues the study of the Java programming language. Covers advanced programming topics including multithreading, network/Internet programming, database programming and JavaBeans. Enables the student to write advanced, large and complex programs.

CSC 245 - Secure Software Development: (Language)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 161 OR Co-Requisite

Corequisite(s): CSC 161 or Pre-Requisite

Focuses on functionality when implementing security consequences with regard to formatted output and arithmetic operations in a program. The course introduces how to write a program that creates safe, reliable, and secure systems free from undefined program behaviors and exploitable vulnerabilities.

CSC 246 - Mobile App Development

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): CSC 119.

Learn how to develop mobile apps using key features and frameworks. Students will learn application design and development using a mobile development platform software development kit (SDK) and corresponding programming language. Main features include: handling UI triggered and touch events, data management, simple and complex UI views, drawing, location and application settings.

CSC 267 - Object-Oriented Design

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): CIS 115 or permission of instructor.

Teaches the student practical methods for analyzing business problems and designing large-scale software solutions. Making use of object-oriented techniques, tools and methodologies, with an in-depth focus on the Unified Modeling Language.

CSC 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CSC 300 - Advanced Computer Architecture

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Covers the analysis of advanced concepts in the applications of computer architecture and programming capabilities with keyboard and display controllers within programs. This course investigates the impact of exceptions and interrupts within a simulator, examines the hazards associated with a pipelined datapath, and uses the analysis of floating-point instructions.

CSC 320 - Software Engineering Fundamentals

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the skills necessary to analyze, design, and implement software engineering projects. The course includes software engineering standards and processes, qualitative aspects including maintainability, extensibility, reusability, and robustness in every stage of the software-engineering life-cycle.

CSC 322 - Security Fundamentals and Databases

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Examines the vulnerabilities of databases to attack. Functional requirements and security testing, focusing on the interaction between a software user and the application, are analyzed. This course will investigate database platforms and provide database developers with an understanding of database development best practices for optimum security.

CSC 324 - Secure Coding Vulnerabilities I

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and implementing software vulnerabilities. This course explores vulnerabilities through code evaluation and implementation of language-specific solutions.

CSC 326 - Secure Scripting of Operating Systems

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and configuring an environment and assessing configuration variables in multiple operating systems. Topics include using multiple utilities in order to assimilate information on a network, host and data communications, and creating scripts for evaluation.

CSC 328 - Security Libraries in Programming Languages

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the issues surrounding security libraries within programming languages. This course analyzes static typing within a software program to assess integrity within a given programming library. The course will also explore what effect mutable resources have on security, along with encryption tools, and violation channels.

CSC 422 - Secure Software Engineering

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on the analysis and functionality of defective software and how to develop and implement secure software. The analysis performed by software engineers in order to detect, repair, and maintain safe systems will also be covered.

CSC 424 - Secure Code Vulnerabilities II

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): CSC 324

Focuses on advanced implementation of software vulnerabilities. This course covers attack vectors frequently used by malicious actors such as email attachments, compromised "watering hole" websites, and other tools often relied on to take advantage of unpatched vulnerabilities found in widely-used software applications. Patching techniques will be deployed in order to repair vulnerabilities found in software components.

CSC 426 - Secure Cloud Programming

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on analyzing and implementing secure applications in the cloud. Topics covered will include designing and implementing applications via the cloud with a focus on security policies, analyzing computer models with recommendations to reduce the risks and security challenges surrounding programming, and data security within the cloud.

CSC 428 - Software Security Testing

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department Chair Approval

Focuses on testing software as it pertains to vulnerabilities within operating systems, libraries, and cloud applications. Topics covered include implementing testing environments through analytical assessments using tools that detect software inefficiencies and using reliable solutions in order to reduce security risks.

Computer Web-Based

CWB 110 - Complete Web Authoring: (Scripting Language)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the complete set of web authoring skills using HTML and/or other scripting languages. Includes links, backgrounds, controlling text and graphic placement, tables, image maps, frames and forms.

CWB 130 - Web Editing Tools: (Editor)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches the use of tools for webpage design and development. These tools are designed to make the creation of webpages easy and consistent. With the use of editing tools, students will be able to build webpages making use of forms, tables, frames, templates, Cascading Style Sheets (CSS) and layers. The student will also be able to easily publish and manage a website once it is created.

CWB 164 - Structured Information Creation (Language)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the complete set of web authoring skills using a structured web information language and/or other scripting languages. Course content also includes links, backgrounds, controlling text and graphic placement, tables, image maps, frames and forms.

CWB 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CWB 185 - Independent Study

Credit(s): 1-6

Independent Study Hour(s): 2-12

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

CWB 205 - Client-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explores the client-side programming skills necessary to create dynamic web content using a markup embeddable and procedural scripting language executed on the client web browser.

CWB 206 - Server-Side Scripting: (Software)

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): MGD 141

Explores the creation of dynamic web pages and applications using server-side scripting with database interactivity, server-based scripting languages, and database manipulation languages.

CWB 208 - Web Application Development: (Development Tool(s))

Credit(s): 3

Vocational Lab Hour(s): 4.5

Teaches students how to work in the server-side scripting environment. Students learn the basics of application

development, and general principles that apply to most development environments. Students develop applications using two different server-side application development tools: PHP Hypertext Preprocessor (PHP), and Cold Fusion. Students also learn key application standards such as source and revision control, coding standards, code optimization and data integrity.

CWB 209 - Web Content Management Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141

Explores the use of open source Content Management Systems (CMS) to simplify the creation and maintenance of web sites.

CWB 221 - Technology Foundations for E-commerce

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides the student with thorough knowledge of e-commerce architecture, relational database management systems, and HTML and Network fundamentals.

CWB 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CWB 287 - Cooperative Education

Credit(s): 1-6

Internship Hour(s): 3-18

Provides a college-to-work based experience that draws on combined efforts of educators and employers to produce outcomes related to student career objectives.

Construction Technology

CON 105 - Construction Technology

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Explores a variety of new software applications now available for the construction trade. Introduces computer applications such as CAD, scheduling, estimating and accounting programs. Explores technology choices and compares them.

CON 106 - Site Prep through Foundation

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces blue-print reading and how they apply to the construction site. Includes in-depth introduction to site layout

(materials and methods). It also covers materials and methods for concrete forms and foundations. Includes various reinforcement methods such as re-bar and welded-wire fabric.

CON 110 - Introduction to Construction, Part 1

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Explores the expanding array of careers within the construction industry. Students will be exposed to the construction industry throughout job site tours, hands-on experience and classroom activities. Math and science application will be established throughout the academic integration of jobsite technical skills and classroom theory.

CON 111 - Introduction to Construction, Part 2

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Explores additional careers within the construction industry. Students will be exposed to the construction industry throughout job site tours, hands-on experience and classroom activities. Math and science application will be established through the academic integration of jobsite technical skills and classroom theory.

CON 112 - Basic Repairs for Home or Apartment

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Focuses on repair and maintenance of buildings. Covers preventative maintenance methods and skills.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

CON 120 - Building Materials and Environmental Impact

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Examines the qualities, uses and characteristics of wood, building materials, lumber, grading and defects of hard and soft woods, estimating, ordering, pricing, fasteners, adhesives, manufactured wood products, steels, vinyl and aluminum and their applications in construction process. Explores Built-Green products and their characteristics.

CON 140 - Introduction to Building Codes & Enforcement

Credit(s): 3

Lecture Hour(s): 3

Introduces the basic concepts of code enforcement.

CON 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CON 244 - Concrete and Asphalt Technology

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): EGG 100.

Focuses on the study of Portland cement concrete and bituminous pavements. Covers manufacturing, mix design and placement of these materials.

CON 245 - Project Management

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): EGG 100.

Covers the principles of project planning, scheduling, estimating and management. Emphasizes the basic skills required to supervise personnel. Includes case studies.

CON 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CON 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Instructor approval.

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 business location and with the direct guidance of the instructor.

Cosmetology

COS 103 - Shampoo/Rinses/Conditioners I

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 - Introduction to Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 - Intermediate: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 - Introduction to Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair-cutting implements. Focuses on basic hair-cutting techniques using all cutting implements, disinfection and sanitation procedures as they relate to haircutting.

COS 121 - Intermediate I: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Focuses on theory related to facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 - Introduction to Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Combines theory with the practical application of roller placement, shaping, pin curls, finger waves, air forming iron curling, soft pressing and hard pressing.

COS 131 - Intermediate I: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 - Introduction to Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

COS 141 - Intermediate I: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 - Laws, Rules and Regulations

Credit(s): 1

Lecture Hour(s): 1

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, as well as the effects they have on the student, licensed individual, salons and school owners.

COS 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

COS 161 - Intermediate I: Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

COS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

COS 203 - Shampoo/Rinses/Conditioners II

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 103.

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 - Intermediate II: Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 110.

Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

COS 211 - Advanced Hair Coloring

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 111.

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 - Intermediate II: Haircutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 120.

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 - Advanced Hair Cutting

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 121.

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 - Intermediate II: Hair Styling

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): COS 130.

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 - Advanced Hair Styling

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 131.

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment.

Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 - Intermediate II: Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 140.

Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

COS 241 - Advanced Chemical Texture

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 141.

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards.

Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 - Management, Ethics, Interpersonal Skills & Salesmanship

Credit(s): 1

Lecture Hour(s): 1

Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

COS 260 - Intermediate II: Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Provides continued study of theory and practice of proper methods of sterilization, disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

COS 261 - Advanced Disinfection, Sanitation & Safety

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): COS 161.

Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

COS 262 - Advanced II: Disinfection, Sanitation & Safety

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): COS 260.

This course is the extra hours/credits required for the hairstylist program, per State Board of Colorado Barber/Cosmetology Board. Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

COS 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

EST 101 - Introduction to Sterilization, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of sterilization, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with sterilization and sanitation.

EST 110 - Introduction to Facials and Skin Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic understanding of massage manipulations when providing facials, the study of skin in both theory and practical applications, and benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

EST 111 - Intermediate Facials & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 110.

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 160 - Introduction to Disinfection, Sanitation & Safety

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Introduces the various methods of disinfection, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with disinfection, sanitation and safety.

EST 161 - Intermediate Disinfection, Sanitation & Safety

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Presents theory and the daily utilization and practice of the proper methods of disinfection, sanitation, and safety. Procedures as related to all phases of the industry. Training is provided in a supervised (clinical) setting.

EST 210 - Advanced Massage & Skin Care

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): EST 111.

Provides the student with advanced techniques in massage, skin care and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 - Facial Make-up

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): EST 110.

Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 - Hair Removal

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): EST 110.

Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

EST 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

NAT 108 - Introduction of Manicuring/Pedicures/Artificial Nails

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction into the proper use of implements used in manicures, pedicures and artificial nails. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures, pedicures and artificial nails is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 110 - Introduction to Manicures & Pedicures

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Provides a basic introduction in the proper use of implements used in manicures and pedicures. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures and pedicures is covered. Training is done in a classroom or lab setting using models or other techniques.

NAT 111 - Intermediate Manicures & Pedicures

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures, nail art and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service. Proper sanitation and sterilization as it pertains to all aspect of manicures, pedicures and nail art is taught.

NAT 158 - Intermediate Manicuring/Pedicures/Artificial Nails

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 159 - Intermediate Manicuring/Pedicures/Artificial Nails II

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Presents theory and practical application dealing with different types of manicures, pedicures and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of artificial nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 208 - Advanced Manicuring/Pedicures/Artificial Nails

Credit(s): 4

Voc/Tech Clinic Hour(s): 8

Provides advanced theory and practical application of manicures, pedicures and nail art techniques. Theory and advanced practical techniques of silk wraps, tip overlays, acrylics and product knowledge to ready the student for employment is presented. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to manicures and pedicures is covered.

NAT 210 - Advanced Manicures & Pedicures

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): NAT 211.

Presents theory and practical application dealing with different types of manicures, pedicures massage techniques and nail art. Theory and practical application of procedures, products, nail shapes and maintenance of the natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 211 - Application of Artificial Nails

Credit(s): 5

Voc/Tech Clinic Hour(s): 10

Prerequisite(s): NAT 111.

Provides advanced theory and practical application of nail wraps, tip overlays, acrylics and product knowledge to ready the student for employment. Theory and practical application of removal techniques for artificial nails is covered. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to artificial nails is covered.

NAT 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Counseling

CSL 245 - Professional Ethics I

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This course focuses on ethical issues specific to the practice of addiction counseling and on jurisprudence, which is the law and the practice of psychotherapy in Colorado. The class will cover the Colorado Mental Health Practice Act and introduce the student to the regulatory system and the role of DORA (Dept. of Regulatory Agencies) and DBH (Division of Behavioral Health) in the development and credentialing of the addiction counselor. There will be emphasis on developing ethical decision making skills, knowledge of confidentiality and the prohibited activities in the Mental Health Practice Act. Students will become familiar with the NAADAC Code of Ethics and acquire the tools for ethical and legal practice.

CSL 248 - Clinical Assessment & Treatment Planning

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): CSL 260

Covers the differences between screening and assessment and use of assessment instruments. In this course components of the clinical assessment include a biopsychosocial interview, assessing risk for self-harm, identifying cultural needs and supports, problem domains, determining stage of readiness for change and strengths of the client. Stages of treatment and systems of care will be covered along with facets of treatment planning.

CSL 250 - Motivational Interviewing I

Credit(s): 1.5

Lecture Hour(s): 1.5

Prerequisite(s): CSL 268

Provides the opportunity for students to learn both the model of Motivational Interviewing as well as the underlying Stages of Development model. Discussion of the populations of clients where these models have proven most effective will be discussed. Student opportunity for skills practice during class that includes skill sets specific to each stage of client readiness will be used. Presentation of assessment instruments to evaluate client readiness for change.

CSL 251 - Pharmacology I for Addiction Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide a solid base of knowledge about the drugs of abuse, including what is happening in human physiology and behaviors, and will enhance the ability of the counselor to offer treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

CSL 252 - Pharmacology II for Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): CSL 251

Focuses on the pharmacology of alcohol and drugs such as stimulants, nicotine, cannabis, hallucinogens, designer drugs, over the counter medications, and medications for psychiatric illnesses. When combined with CSL 251, this course meets the pharmacology training requirement for the Counselor II level of the Colorado Alcohol and Drug Abuse Program.

CSL 253 - Cognitive Behavior Therapy

Credit(s): 1

Lecture Hour(s): 1

Opportunity for students to learn the model of Cognitive Behavior Therapy as it applies to addiction. Discussion of the populations of clients where this model has proven most effective. Opportunity for skills practice during class that includes clinical feedback. Minimum of 14 contact hours.

CSL 254 - Trauma Informed Care

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Covers the concept of trauma-informed care, an approach being adopted within human services based upon an increased awareness of the ways trauma impacts functioning. Course will define what trauma informed care is and ways a traditional treatment setting can be modified to increase the sense of safety experienced by clients. Participants will learn how to incorporate trauma-informed practices into treatment with diverse populations, such as military veterans, women, and people with co-occurring disorders.

CSL 255 - Infectious Diseases for Addiction Counselors

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will help prepare addiction professionals to identify diseases frequently associated with drug abuse, determine client risk for infection, educate clients about disease prevention and treatment options, and assist clients in obtaining appropriate treatment as needed. This class will enhance the ability of the counselor to offer treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

CSL 256 - Co-occurring Disorders

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Presents the basics of working with clients with co-occurring mental health and substance abuse disorders. This class will address clinical assessment, treatment philosophy, strategies, and guidelines to provide integrated treatment with co-occurring disorders. It will include an introduction to the diagnostic criteria for the mental disorders most often seen with substance use disorders. The essential values, attitudes, and competencies of the counselor working with this population are discussed.

CSL 257 - Certified Addiction Counselor

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School Diploma or equivalent

Provides participants with an overview of ethical and risk management issues related to addiction treatment services with an emphasis on professional conduct, professional boundaries, boundary crossings, boundary violations, dual relationships and an appropriate use of counselor self-disclosure. Class will focus on issues of professional distance, modeling and maintaining healthy therapeutic boundaries. The ethics of delivering professional counseling to persons of culturally diverse backgrounds will be discussed along with issues of professional readiness and professional development.

CSL 258 - Group Counseling Skills

Credit(s): 1.5

Lecture Hour(s): 1.5

Prerequisite(s): CSL 268

Provides students with the skills that allow one therapist to facilitate a group process that help a number of clients simultaneously, and provides positive peer support and pressure for recovery. This class will help the student understand the use of group therapy and be able to demonstrate the skills necessary to facilitate a therapy group. The class will focus on group process and discuss diversity within groups, as well as challenges for group leaders.

CSL 260 - Client Records Management

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide the counselor with an understanding of the clinical record and the continuum of client care that the record documents and tracks. The class presents screening, assessment and evaluation, diagnosis, ASAM patient placement criteria, treatment planning, progress note completion, documentation requirements and discharge planning. It emphasizes the confidentiality of the client record and includes releases of information, mandatory disclosure and informed consent among others.

CSL 265 - Culturally Informed Treatment

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): High School diploma or equivalent.

This class will provide a basic foundation for understanding how cultural competence, awareness and sensitivity can improve quality of care and increase positive outcomes. Cultural variables to be considered will include age, gender, sexual orientation, religious affiliation, language, educational level, physical ability, economic status and social class as well as racial and ethnic backgrounds. This course is intended to provide participants with basic skills to recognize and respect the behavior, ideas, attitudes, values, beliefs, customs, language, rituals, ceremonies and practices characteristic of diverse groups of people. Course design will include definitions and descriptions of culture including concepts of assimilation and acculturation. Exercises will involve self-examination and discussion of the evolution of one's own personal beliefs, values and attitudes.

CSL 268 - Addictions Counseling Skills

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): High School diploma or equivalent.

This class will provide a framework and counseling model for working with clients with substance abuse or dependence. This course will teach the counseling skills needed to help clients process their information and move toward the change process. The models utilized in this class are client-centered, counselor-directed therapy using a motivational style and spirit.

CSL 269 - Principles of Addiction

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): High School diploma or equivalent.

Focuses on the major theories of addiction in an historical and theoretical context. Includes an elaboration on NIDA's Principles of Drug Addiction Treatment. This class meets the principles of addictions training requirement for the Counselor I level of the Colorado Alcohol and Drug Abuse Program.

Criminal Justice

CRJ 110 - Intro to Criminal Justice: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Introduces the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives, and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. This is a statewide Guaranteed Transfer course in the GT-SS3 category.

CRJ 125 - Policing Systems

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): CRJ 110.

Examines policing in the United States, including historical foundations, emerging issues and the relationship between law enforcement and the community. The various types of law enforcement agencies, their administrative practices, and the behavior of those involved in the delivery of police services are examined from the perspective of democratic values, racial and ethnic diversity, and societal perceptions of police effectiveness. Career requirements, including current and future trends, are also presented.

CRJ 135 - Judicial Function

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Provides an overview of the structure and function of the dual American judicial system and the behavior of actors (judges/justices, lawyers, law clerks, interest groups, etc.) within the system. Emphasis is placed on the organization and administration of state and federal courts, criminal court procedures, juries, selection of judges, decision-making behavior of juries, judges and justices, and the implementation and impact of judicial policies.

CRJ 145 - Correctional Process

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110.

Examines the history and total correctional process from law enforcement through the administration of justice, probation, prisons, correctional institutions and parole. Also examines the principles, theories, phenomena and problems of the crime, society and the criminal justice system from the perspective of criminology and the criminal justice system in general. Emphasizes the role of sociology and other interdisciplinary approaches to the field of corrections and society's response.

CRJ 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CRJ 205 - Principles of Criminal Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110, CRJ 125, CRJ 135, CRJ 145, and ENG 121.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 122.

Focuses on common law and statutory law crimes, the Model Penal Code, elements defining crimes and penalties, defenses to criminal accusations, and definitions and distinctions between criminal and civil law.

CRJ 210 - Constitutional Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 135.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Focuses on the powers of government as they are allocated and defined by the United States Constitution. The course includes intensive analysis of United States Supreme Court decisions.

CRJ 230 - Criminology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of CRJ 110 and CRJ 145.

Prerequisite(s)/Corequisite(s): COM 115 and ENG 121.

Provides an introduction to the study of crime, understanding the causes of crime, and examines, theoretical frameworks and theories to explain criminal behavior. Within a social context, consideration is given to how theories have emerged and understand how social context contributes to explanations of crime. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

CRJ 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CRJ 280 - Cooperative Education/internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department chair or program coordinator approval.

Provides work experience for students to gain practical work experience related to their educational program.

*Individuals desiring this Peace Officers Standard and Training (P.O.S.T.) course of study must file an application with the Police Academy coordinator before registering. Colorado State law requires that Police Academy students meet specific guidelines prior to admission. *Students pursuing a Police Science area of emphasis are expected to complete the Pueblo Law Enforcement Academy. This must be coordinated with the Director of the Academy and the assigned CRJ student advisor.

Culinary Arts

CUA 101 - Food Safety and Sanitation

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the basic rules of sanitation, food-borne illnesses, safe food temperatures, safe food handling techniques, the HACCP Program, pest control procedures and local/state health rules and regulations for food service operations. At the completion of the course students take a nationally recognized test from the Education Foundation of the National Restaurant Association. If passed with a score of 75% or more, students receive a certificate from the Education Foundation.

CUA 103 - Sanitation & Production Servsafe

Credit(s): 3

Vocational Lab Hour(s): 1.50

This course parallels CUA 101 and CUA 121. It accommodates the need for students to have to register for a 3 credit hour course in order to qualify for third-party sponsorship. Students will learn the basics of sanitation and safe food handling, resulting in ServSafe Certification from the National Restaurant Association if they pass a national exam with a score of 75% or higher. They will also be introduced to the principles of food production as practiced in commercial kitchens. Skills included are use of weights and measures, recipe conversion, basic knife cuts and fundamental principles of classical cuisine.

CUA 120 - Wines and Spirits

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Enables students to examine types of beverages and equipment including wines, beers, spirits, bar equipment, and staffing. Covers profitability, marketing, federal and local laws, and service. Focuses on the history of making and processing wines, spirits, and beers.

CUA 121 - Introduction to Food Production Principles and Practices

Credit(s): 1

Vocational Lab Hour(s): 1.50

Corequisite(s): CUA 101 or Department Chair Approval.

Provides students with the fundamental principles of commercial kitchen operations including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. The class meets a minimum of 22.5 hours.

CUA 122 - Introduction to Stocks, Soups, and Sauces

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s)/Corequisite(s): CUA 101, CUA 121 or Department Chair Approval.

Focuses on the fundamental principles of stocks, soups, sauces, gravies and thickening agents. Enables students to produce a variety of these products in the commercial kitchen incorporating practice in the use of tools, utensils, equipment and application of safety and sanitation practices. Students apply pre-preparation skills and efficient organization of work techniques. Meets a minimum of 22.5 hours.

CUA 123 - Introduction to Garde Manger

Credit(s): 1

Vocational Lab Hour(s): 1.50

Corequisite(s): CUA 101, CUA 121, or Department Chair Approval.

Provides fundamental principles of cold food and nonalcoholic beverage preparation and production. Enables students to produce a variety of cold food and non-alcoholic beverage products incorporating practice in the use of tools, utensils, equipment and application of safety and sanitation methods. Introduces basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Focuses on pre-preparation procedures and efficient organization of work techniques. Meets for a minimum of 22.5 hours.

CUA 124 - Vegetable Preparation and Breakfast Cookery

Credit(s): 1

Vocational Lab Hour(s): 1.50

Corequisite(s): CUA 101, CUA 123, or Department Chair Approval.

Introduces students to vegetable preparation and breakfast cookery in a commercial kitchen. Focuses on the significance of variety of breakfast items and the preparation of vegetable items using a variety of cooking methods. Emphasizes the affects of seasonings and cooking methods on vegetable products. Students prepare, plate and garnish breakfast orders similar to those ordered in restaurants with egg cookery and dairy products emphasized. Meets a minimum of 22.5 hours.

CUA 125 - Introduction to Foods

Credit(s): 4

Vocational Lab Hour(s): 6

Corequisite(s): CUA 101

Provides students with the fundamental principles and practices of a commercial kitchen, including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods. Focuses on the fundamental principles and production of stocks, soups, sauces, gravies and thickening agents. Principles of cold food and nonalcoholic beverage preparation and production in a commercial kitchen. Basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines and hors d'oeuvres. Emphasizes the effects of seasonings and cooking methods of vegetable products and basic hot food preparation. Students prepare breakfast orders similar to those ordered in restaurants, with egg cookery and dairy products emphasized.

CUA 129 - Center of the Plate

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 125

Enables the student to plan and prepare a variety of complete meals in a commercial kitchen, focusing on center of the plate entrees including meat, poultry, seafood and vegetarian items. Meat, poultry and seafood handling and preparation, including basic forms and cuts, principles used for selecting products and appropriate cooking methods are emphasized. Vegetarian entrees are also covered, including methods for preparation and cooking of various types of potatoes, rice, legumes, pastas, casseroles and grain products, with special attention given to complimentary proteins.

CUA 131 - Starches, Pastas, Casseroles and Grain Products

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): CUA 101, CUA 121, CUA 124, or equivalent assessment test score, or Department Chair Approval.

Provides the basics of preparing and/or cooking potatoes, starches, legumes and pastas. Enables students to prepare and cook a variety of casseroles and grain products using a commercial kitchen for their preparation area. Allows students to apply pre-preparation skills and efficient organization of work techniques. Class meets a minimum of 22.5 hours.

CUA 132 - Center of the Plate: Meat

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): CUA 101, CUA 121, CUA 124, or equivalent assessment test score, or Department Chair Approval.

Provides the student with the basics of meat handling, including principles used for selecting meat products, their basic cuts and cooking methods. Focuses on a variety of meat products in the college kitchen. Meets for a minimum of 22.5 hours.

CUA 133 - Center of the Plate: Poultry, Fish, & Seafood

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): CUA 101, CUA 121, CUA 124, or equivalent assessment test score, or Department Chair Approval. Provides the basics of handling poultry, fish and seafood including principles used for selection and the basic forms these products have and the methods of cooking them. Focuses on preparation of poultry, fish and seafood products in a commercial kitchen and incorporates practice in the use of these principles and methods. Covers pre-preparation skills and efficient organization of work techniques. Meets for a minimum of 22.5 hours.

CUA 134 - Application of Food Production Principles

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): CUA 122, CUA 123, CUA 124, CUA 131, CUA 132, CUA 133, Department Chair Approval. Serves as the practice vehicle for the student to apply food production principles for foods covered in CUA 121, CUA 122, CUA 123, CUA 124, CUA 131, CUA 132 and CUA 133. Enables the student to plan and prepare a variety of complete meals intended for a variety of settings. Meets a minimum of 22.5 hours.

CUA 136 - Alcohol and Bartending Management

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 125

Prepares students for the preparation and service of alcoholic beverages. Focuses on mixology procedures, wine and champagne service, purchasing and storage procedures, cost controls, customer relations, legal responsibilities of lounge operations and ServSafe alcohol practices.

CUA 141 - Baking: Principles and Ingredients

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Provides the student with the fundamentals of baking terminology, principles of baking and the characteristics and functions of the main ingredients used in bakery production. Meets for a minimum of 22.5 hours.

CUA 142 - Basic Yeast-Raised Products and Quick Breads

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s)/Corequisite(s): CUA 141 or Department Chair Approval.

Provides the student with the fundamentals of basic yeast-raised production and quick breads. Enables the student to produce white bread, rolls, variety grain breads, specialty breads, sweet yeast-raised products, and quick breads in a commercial kitchen. Meets for a minimum of 22.5 hours.

CUA 143 - Baking: Cakes, Pies, Pastries, and Cookies

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s)/Corequisite(s): CUA 141 or Department Chair Approval.

Provides the student with the fundamentals of basic cake, pie, pastry, and cookie production. Enables the student to

produce a variety of cakes, pies, pastries, cookies and assorted dessert items in a commercial kitchen. Meets for a minimum of 22.5 hours.

CUA 144 - Baking Applications

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s)/Corequisite(s): CUA 141, CUA 142, CUA 143 or Department Chair Approval.

Serves as the practical vehicle for the student to apply basic baking principles and practices to the production of yeast breads, quick breads, cakes, icings, pastries, pies and cookies. Focuses on the preparation of a variety of baked goods in a commercial kitchen according to a baking production schedule. Enables the student to demonstrate comprehensive knowledge of products as well as speed and efficiency in the production of quality baked goods. Meets a minimum of 22.5 hours.

CUA 145 - Introduction to Baking

Credit(s): 4

Vocational Lab Hour(s): 6

Provides the student with the fundamentals of baking terminology, principles of baking, and the characteristics of the functions of the main ingredients that is used in bakery production. Orients student to use commercial equipment and tools and provides the student with the fundamentals of basic yeast-raised production and quick breads, white bread, rolls, variety grain breads, specialty breads, sweet yeast-raised products and quick bread, fundamentals of basic cake, pie, pastry and cookie production. Enables the student to produce a variety of cakes, pies, pastries, cookies and assorted dessert items in a commercial kitchen.

CUA 154 - Introduction to the Business of Catering

Credit(s): 3

Lecture Hour(s): 3

Provides students with an overview of the catering industry. Special attention will be given to catering from a customer's perspective. Students completing this course should be able to plan and implement a variety of catering functions. Included in the course will be some experiential learning opportunities as a result of participation in actual college catered functions on campus.

CUA 156 - Nutrition for the Hospitality Professional

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Provides students with the fundamentals of human nutrition. Focuses on the nutritional needs of humans throughout their life cycle as well as those with special dietary needs. Students may take a nationally recognized test from the Educational Foundation of the National Restaurant Association.

CUA 157 - Menu Planning

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to planning menus and integrating them into foodservice operations. Equips the student with a working knowledge of the function, mechanics and results achieved by the menu. Provides an overview of the existing and growing foodservice industry as seen through the menu.

CUA 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CUA 181 - Work Exploration

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): 10 hours of completed course work in CUA and/or HOS classes.

ll be responsible for creating searching questions for quest speakers and will maintain a journal that documents each class's industry representative's main points. Included in the course will be the requirement that students read and report on a book representative of a management theory or industry leader's experience.

CUA 190 - Dining Room Management

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s)/Corequisite(s): CUA 101 or Department Chair Approval.

Focuses on service related skills and knowledge used in the foodservice industry. Enables the student, through a laboratory setting, to practice skills and acquire the knowledge of "front of the house" operations common to dining rooms in the industry. Includes table setting, side work, serving customers, operating a point-of-sale system, hosting and supervising dining room personnel. At the completion of the class, students are able to supervise the operation of a sit-down dining operation. Meets a minimum of 90 hours.

CUA 191 - Front of the House Planning

Credit(s): 1

Vocational Lab Hour(s): 1.50

Teaches how to organize special meal functions, handle reservations and special requests, evaluate dining room personnel, create menu format for the GPA Dining Room and operate the POS manager's menu. Students will meet 22.5 hours during the semester in a scheduled class setting. Assignments and projects will be completed outside of class meetings.

CUA 210 - Advanced Cuisine and Garde Manger

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101, CUA 129

Focuses on the preparation of food display items for buffets and banquets such as fancy garnishes, fruit and vegetable carvings, canapés, party trays, etc. Includes pates, galantines, terrines, and choud froid items. Incorporates creation of food artistry show pieces meeting competition guidelines developed by the American Culinary Federation. Covers the preparation of a regional, ethnic or cultural culinary presentation based upon personal research.

CUA 233 - Advanced Line Prep and Cookery

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 101 CUA 129

Focuses on preparation of complete meals to order. Emphasizes cooking center of the plate items such as meat, fish, seafood and poultry, as well as accompaniment foods such as starches and vegetables. Enables the student to prepare

sauces, entrée salads, edible garnishes and meals determined by the menu prepared for a dining room setting. Emphasizes line supervisor, sauté cook, pantry cook, cook's helper and runner responsibilities.

CUA 234 - Advanced Line Planning

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 233 or Department Chair Approval.

Teaches students to plan a variety of menus to be prepared in CUA 233 - Advanced Line Prep and Cookery. They will also perform the duties of a supervisor in charge of line cookery. They will be responsible for thorough knowledge of menu items including all methods of cookery. Students will order, pre-prepare, store and organize food and supply items for students in the Advanced Line Prep class. They will also organize work (learning) stations for students in the Advanced Line Prep Class. They will learn how to substitute menu items if there are difficulties in equipment or shortages of food items or personnel. Examples of other areas of learning include inventory, ordering, storage and issuing. By the conclusion of this class, students will be able to supervise an entire line prep station.

CUA 236 - Advanced Baking

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): CUA 101, CUA 145

Provides students the opportunity to refine their baking skills in the areas of desserts, yeast breads, garnishing and presentation of baked products. Enables the student to bake, garnish and present a variety of baked goods. These products are prepared and displayed for the public in various locations in the college.

CUA 238 - Production Applications of American Regional Cuisines

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 129

Provides students with advanced a la carte cooking skills involving foods representative of major American regions. Using in depth research, students will develop regional menus; prepare presentations about their regions; create cooking demonstrations; and lead the class in the preparation of complete menus. Menus will be prepared and served to customers in a dining setting. Students will work as members of highly functioning teams as they prepare menus which reflect unique characteristics of American regions.

CUA 239 - Production Applications of International Cuisines

Credit(s): 4

Vocational Lab Hour(s): 6

Prerequisite(s): CUA 233.

Provides students with advanced a la carte cooking skills involving foods representative of cuisines in International areas. Using in depth research, students will develop menus representative of an assigned International area; prepare presentations about their area; create cooking demonstrations; and lead the class in the preparation of complete menus. Menus will be prepared and served to customers in a dining setting. Students will work as members of highly functioning teams as they prepare menus which reflect unique characteristics of International locations.

CUA 255 - Supervision in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the current/future foodservice operator, manager, or supervisor with a solid foundation for developing communication skills, planning and decision-making skills, and skills for creating a goal-oriented environment utilizing management principles in the selection, training, evaluating, delegating, motivating, rewarding and disciplining employees. Stresses skills for success through people development.

CUA 256 - Marketing in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Involves the student in a study of foodservice marketing, including marketing planning, use of marketing information in the foodservice operation, marketing research, understanding foodservice customers, advertising and promotion, hospitality group sales, and menu design and pricing strategies. At the conclusion of this course, the student will take a nationally recognized test and receive a certificate from the Education Foundation of the National Restaurant Association.

CUA 261 - Cost Controls

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107, CIS 109, CIS 118, or Department Chair Approval

Corequisite(s): MAT 107.

Provides students with the opportunity to learn the types of costs usually found in the food service industry. Students will learn to apply control techniques to a variety of costs and sales. They will also learn to interpret a variety of financial reports which reflect the relationship between costs and income. Students may take the national Cost Controls test from the National Restaurant Association Education Foundation. If they pass the test with 75% or higher, they will receive a national certificate for the course.

CUA 262 - Purchasing for the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Emphasizes controlling costs as applied to the selection and procurement of food and supply items. Covers selection and procurement of food and supplies, supplier selection and distribution systems, including the forces affecting them. Students will take a nationally recognized test and may receive a certificate from the Education Foundation, the educational arm of the National Restaurant Association.

CUA 263 - Legal Aspects of Hospitality Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Provides the student with an overview of legal subjects relevant to foodservice. Covers federal, state and local regulations, patron civil rights, liability and safety, laws relating to employment, security, contracts, property rights, franchising, bankruptcy and reorganization, court system and out-of-court settlements, and choosing and managing an attorney.

CUA 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

CUA 281 - Internship

Credit(s): 2-6

Internship Hour(s): 6-18

Prerequisite(s): MAT 107, CUA 157, CUA 190, CUA 233, CUA 261 or, HOS 123, HOS 207, and CIS 118; or Department Chair Approval.

Places students in an actual work situation where they participate in the operation of a foodservice establishment. Hours of work are arranged by the site supervisor and the intern. The number of hours required are determined by the number of credits the course carries.

Dance

DAN 111 - Modern Dance I

Credit(s): 1

Academic Lab Hour(s): 2

Introduces basic concepts and skills of modern dance. Focuses on technique work to increase strength, flexibility, endurance, coordination, rhythm and spatial awareness. Explores dance as a tool for communication and dance as an art form. May be repeated for no more than three credits.

DAN 121 - Jazz I

Credit(s): 1

Academic Lab Hour(s): 2

Introduces the basic techniques and vocabulary of jazz dance and the basic elements of dance. Focuses on movement-oriented dance, comprising warm-up exercises, center combinations, traveling combinations and cool down.

DAN 125 - Dance History: AH1

Credit(s): 3

Lecture Hour(s): 3

Examines Western & non-Western dance as an expression of cultural value throughout history from early Renaissance dance through present day dance trends. Attention is given to social, political, economic, environmental, racial and gender effects as it pertains to the historical development of dance forms within societies. Explores how our cultural lens shifts our perception of movement, the body, and our values. This is a statewide Guaranteed Transfer course in the GT-AH1 category.

DAN 129 - Introduction to Dance

Credit(s): 1

Art Studio Hour(s): 2

Introduces the art of dance and movement expression from a variety of viewpoints - historical, cultural, aesthetic, critical and creative. Examines the art and craft of dance as an expression of culture and community while exploring personal expression, imagery, dance techniques and performance qualities.

DAN 131 - Ballet I

Credit(s): 1

Art Studio Hour(s): 2

Introduces the basic techniques of ballet, which are built upon knowledge of ballet terminology, fundamental exercises and the basic elements of dance. Focuses on movement-oriented dance, comprising stretching, barre warm-up exercises, simple Terre à Terre and jumping steps, and basic extended positions. May be repeated for a maximum of three credits.

DAN 141 - Ballroom Dance

Credit(s): 1

Academic Lab Hour(s): 2

Introduces the basic terminology, techniques and routines of several dances from a specific country or region. Focuses on the music, costumes and customs related to the dances they study. Partners are not required. May be repeated for a maximum of three credits.

DAN 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DAN 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Dental Assisting

DEA 200 - Introduction to Expanded Functions

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Graduate of an ADA-accredited program, certified dental assistant, or 2 years of full time documented chairside experience

Emphasizes techniques and concepts of expanded functions in dental assisting, including team management, placement and finishing of dental restorative materials, and adjunct procedures necessary to restorative dentistry.

DEA 205 - Expanded Functions for the Dental Auxiliary

Credit(s): 4

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): DEA 200

Focuses on clinical application of expanded functions in dental assisting.

Dental Hygiene

DEH 101 - Preclinical Dental Hygiene Lecture

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces basic dental hygiene theory, instrumentation, and patient care assessment. Focuses on the application of diagnostic, preventive, and therapeutic procedures in a wide variety of areas related to clinical practice, health promotion, and disease prevention.

DEH 102 - Preclinical Dental Hygiene Care

Credit(s): 3

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces the entry-level dental hygiene student to fundamental procedures and techniques to include instrumentation, infection control, and patient assessment. Provides a variety of clinical learning experiences to develop basic skills and knowledge for entry into the dental hygiene profession.

DEH 103 - Dental Anatomy and Histology

Credit(s): 3

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces the general anatomy of the face including terminology, anatomic landmarks, and tooth identification. Specific focus is placed on the anatomical and histologic features of the teeth and other structures of the oral cavity. Introduction to the embryology of the face, oral, and nasal cavities is presented, as well as development of the teeth and histological features of the various components of the teeth and surrounding structures.

DEH 104 - Dental Radiology

Credit(s): 3

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Introduces principles of x-radiation production and safety factors; application and theory of properly exposing, processing, mounting and evaluating radiographs; identification of normal anatomic landmarks and pathologic conditions. Focuses on utilization of the laboratory in performing procedures necessary to produce quality radiographs.

DEH 105 - Introduction to Dental Hygiene

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Provides the first year dental hygiene student with the basic knowledge, theory, and skill necessary to advance to subsequent clinical dental hygiene courses. This course includes an introduction to the principles of basic instrument recognition, expected professional and ethical behaviors, HIPAA and FERPA compliance, OSHA standards for infection control, dental software systems, oral hygiene instruction, dental hygiene care planning for the patient, and proper consent form documentation.

DEH 111 - Dental and Medical Emergencies

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Introduces the management of emergency situations in the dental office setting. Explains the management of emergency situations with an emphasis on prevention and identification of potential medical emergencies that can occur in the dental office or during dental treatment. Provides practical skills applicable to dental hygienists and the scope of responsibility for medical emergency management as dictated by state dental practice law. Includes content and use of emergency kits, oxygen support systems, use of ASA classification to evaluate risk, and emergency management simulations.

DEH 122 - Periodontics I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Introduces the principles of periodontics. Focuses on recognition of the tissues in health and disease, macro and microanatomy of the periodontium, and histopathology of periodontal diseases and other related gingival conditions. Provides the theory and discussion of periodontal assessment, etiology, epidemiology, inflammatory process/immune response, and the AAP classification system.

DEH 123 - Head & Neck Anatomy

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Analyzes the anatomy and function of the head and neck with emphasis on the muscles of mastication and facial expression, bones of the head and neck, the temporomandibular joint, lymphatic, glandular system, vascular supply, nervous system, and the oral cavity.

DEH 126 - Dental Materials

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Examines the science of dental materials providing a sound knowledge of the use and function of these materials in clinical practice. Covers didactic and laboratory experiences of the physical properties, chemistry, and clinical applications of the materials used in the practice of dentistry.

DEH 132 - Applied Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Examines general pharmacology and discusses relevant drugs that may influence the management of dental hygiene patients. Completion of the course enables students to perform safe and effective evaluations of patients for dental hygiene treatment.

DEH 133 - Local Anesthesia

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 111, DEH 123, current enrollment in Dental Hygiene program.

Provides a working knowledge of the theory and practice of local anesthesia as applied to the practice of dentistry/dental hygiene. Emphasizes mastery of the armamentarium and techniques of regional anesthesia. Covers the knowledge and skills necessary to administer local anesthetics proficiently and safely.

DEH 134 - Advanced Clinical Skills

Credit(s): 1

Lecture Hour(s): 0.70

Voc/Tech Clinic Hour(s): 0.60

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on dental hygiene theory and laboratory experiences with major topics related to advanced clinical skills, including advanced instrumentation fulcrums, root morphology, periodontal files, periodontal file sharpening, mini currettes, after five currettes, nabors probe, universal focus spray ultrasonics and scaling implants.

DEH 136 - Clinical Dental Roentgenology

Credit(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current enrollment in Dental Hygiene program.

Enhances clinical competence of basic radiographic principles including intra-oral, positioning techniques, exposure factors, bisecting technique, vertical bitewing survey and management of anatomical deviations.

DEH 138 - Nitrous Oxide/Oxygen Sedation

Credit(s): 1

Lecture Hour(s): 0.80

Voc/Tech Clinic Hour(s): 0.40

Prerequisite(s): BIO 201, BIO 202, current enrollment in Dental Hygiene program.

Provides a working knowledge of the latest equipment and methods of nitrous oxide/oxygen sedation administration in the dental office.

DEH 153 - Clinical Theory of Dental Hygiene I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Builds on the broad theoretical basis provided in DEH 101 and DEH 102. Focuses on enhancing patient assessment skills, instrumentation and additional information on preventative and prophylactic clinical procedures.

DEH 170 - Clinical Practice of Dental Hygiene I

Credit(s): 4.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides clinical experience in patient skills assessment, instrumentation and additional preventative and prophylactic clinical procedures.

DEH 171 - Clinical Practice of Dental Hygiene I-A

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Current enrollment in Dental Hygiene program.

Continues patient care sessions for the performance of traditional dental hygiene treatment. Enables the student to provide treatment to periodontally involved patients utilizing advanced instrumentation and power scaling.

DEH 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DEH 202 - Applied Nutrition in Dentistry

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in the Dental Hygiene program.

Gives students a fundamental understanding of general nutrition with an emphasis on the interrelationship between nutrition and dental health. Focuses on recognizing nutritional deficiencies and how to conduct and evaluate nutritional surveys on patients.

DEH 204 - Community Dental Health I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Course provides instruction in the concepts, methods and issues of dental public health. Emphasis is placed on evidence-based criteria for effective promotion and prevention of dental disease in the public health setting. Concepts of dental health education and program planning in the community setting are reinforced through case-based materials, including methods of assessment, planning, implementation and evaluation of effectiveness. Course activities will reinforce skills in speaking and writing effectively in preparation for the subsequent community dental health field experience course.

DEH 213 - General and Oral Pathology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the fundamentals of general pathology and the disease process. Covers oral pathology with emphasis on recognition and identification of pathologic conditions that most frequently occur around the oral cavity. Helps students identify appropriate referral mechanisms to render a definitive diagnosis.

DEH 221 - Ethics and Practice Management

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the transition from an educational environment to a working dental business. Enables the student to learn management skills of operating a dental office. Emphasizes opportunities for self-exploration in development of personal and professional goals. Examines professional ethics, legal issues and the relationship to the licensed practice of dental hygiene.

DEH 225 - Community Dental Health II: Field Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DEH 204.

Provides practical application of community dental health theory and opportunities to conduct needs assessments on a variety of populations. Emphasizes meeting the educational needs of specific populations through program planning, implementation and evaluation. Incorporates supervised field experiences in low-income, school and other public facilities, as well as private health and education oriented organizations.

DEH 242 - Periodontics II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): DEH 122.

Continues to explore theoretical/clinical preparations with emphasis on dental hygiene process of care, treatment planning, nonsurgical treatment, evaluation of treatment and maintenance needs of the periodontal patient. Develops research and decision-making skills with use of library and Internet resources relating to risk factors, etiologic agents and treatment modalities. Includes comprehensive periodontal assessment, supplemental diagnostics, periodontal pharmacology and evidence-based treatment planning.

DEH 259 - Advanced Dental Hygiene Theory

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Focuses on the care of patients with special needs, such as physical and mental disabilities and systemic conditions. Emphasizes patient management and treatment considerations.

DEH 266 - National Boards Review

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides formal review sessions for second-year dental hygiene students preparing to sit for the National Board Examination.

DEH 268 - Clinical Theory of Dental Hygiene II

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Provides the didactic theory for clinical practice of dental hygiene skills at the beginning of the second year of dental hygiene curriculum. Builds on clinic theory from first year curriculum to provide the knowledge base needed for treatment of patients with more advanced periodontal disease and medical/health factors. Focuses on periodontal charting and documentation, interpretation of periodontal factors on radiographs, use of treatment planning in the dental hygiene process of care, legal parameters of record keeping and informed consent, use of oral photography, application of sealants, treatment of dental hypersensitivity, application of chemotherapeutics and professional oral irrigation, application of ergonomics in dentistry, clinical dental hygiene treatment considerations for patients with history of cardiac complications and diabetes.

DEH 270 - Clinical Practice of Dental Hygiene II

Credit(s): 6

Voc/Tech Clinic Hour(s): 12

Prerequisite(s): Current enrollment in Dental Hygiene program.

Covers patient care sessions for the performance of traditional dental hygiene treatment. Continues and expands periodontal patient care and special patient care sessions. Focuses on clinical competence in margination and polishing of restorations, nutrition counseling, oral irrigation, chemotherapeutics and OSHA compliance.

DEH 271 - Clinical Practice of Dental Hygiene III

Credit(s): 6

Voc/Tech Clinic Hour(s): 12

Prerequisite(s): Current enrollment in Dental Hygiene program.

Continues patient care session with emphasis on attaining a level of competency and efficiency for successful performance in clinical board exams and private practice. Focuses on clinical skill development in tobacco cessation, product selection, patient communications, curettage and Special Topics developed patient treatments. Provides elective extramural clinical sites for additional practice.

DEH 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DEH 282 - Periodontics III

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): DEH 122.

Course provides comprehensive dental hygiene clinical management techniques for periodontal patients supported by application of basic clinical research sciences. Focus is on the therapy component of periodontics, including instructional sessions covering the general principles of periodontal surgery, the surgical management of soft tissues and osseous defects, wound healing, implants, and the role of occlusion in periodontal therapy.

DEH 285 - Clinical Theory of Dental Hygiene III

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Current enrollment in Dental Hygiene program.

Serves as the Capstone course of the final semester of a two-year curriculum. Prepares the student for two major goals - basic competence for transition to provision of dental hygiene services in private practice and the ability to successfully pass both written National Boards examinations and regional dental hygiene clinical examinations. Emphasizes the application of case-based learning. Major topics include cosmetic bleaching, air powered polishing devices, application of the re-evaluation process in treatment planning for periodontally involved cases, preparation for the CRDTS regional clinical exam process, application of an effective tobacco cessation process, technique and process for gingival curettage, technique and process for amalgam polishing and margination, care of cosmetic dental restorations, and maintenance of implants.

DEH 301 - Advanced Careers in Dental Hygiene

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

Provides an overview of the career options available to the dental hygienist with an advanced degree. In depth analysis of alternative careers to include: public health systems, dental hygiene education, research, sales and marketing, oral health policy and oral health care delivery systems.

DEH 302 - Applied Dental Hygiene Research Methodologies

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

Corequisite(s): MAT 135.

Develops the skills necessary to identify and develop a research topic, navigate a research database and develop an effective, scientifically sound and persuasive research paper with specific emphasis on dental and dental hygiene topics.

DEH 341 - Clinical Teaching Methodologies

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

This course provides students the opportunity to compare and contrast practical experience as it relates to dental hygiene clinical instruction. Students will apply teaching methodologies, psychomotor learning theories, feedback techniques and motivational strategies to direct student learning.

DEH 343 - Principles of Conflict Resolution in Dentistry

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

This course studies the principles of conflict resolution as it relates to the profession of dental hygiene. Students will learn the strategies available for resolving conflicts with peers, team members, patients and employers. Students will reflect on their own strategies for resolving conflicts based on practical experiences.

DEH 355 - Social and Behavioral Determinants of Oral Health

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission into the program.

Evaluate the complexity and interplay of social and physical environmental structures, economic systems and behavioral patterns that affect overall health with a focus on health services, health beliefs and their impact on health-related behavior choices.

DEH 387 - Dental Hygiene Leadership and Administration

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission into the program.

Examining the skills needed for leadership roles in public health, community health, education, business and industry with emphasis on leadership theories and application.

DEH 411 - Teaching Methodologies

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admissions to the program.

This course provides a general overview of the concepts and theory relative to dental hygiene education. Students will be introduced to dental hygiene accreditation standards, outcomes-centered objectives, syllabus development, lesson planning, content delivery, test construction and assessing student learning. Students will explore the various learning styles and technology available for delivery of course content.

DEH 455 - Topics in Dental Public Health

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the program.

Provides a comprehensive overview in public health as it relates to the field of dentistry. Surveys and analyzes oral health services, community programs, disease prevention, policy, ethics and issues facing the profession today.

DEH 471 - Advanced Pharmacology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the program.

This course provides the student with current research application of pharmacology as it relates to the oral manifestations and complications of associated drugs. Students will investigate the effects, oral implications, treatment considerations and contraindications for the management of patient care. This course will study the most frequently used drugs by patients today and determine the overall impact on oral health.

DEH 489 - Capstone: Dental Hygiene

Credit(s): 5

Seminar Hour(s): 5

Prerequisite(s): MAT 135 and admission to the program.

Provides the student an opportunity to participate in a cumulative learning experience that integrates theory and applies previously learned knowledge and skill. The student will design, implement and evaluate a project related to their specific area of interest.

Diagnostic Medical Sonography

DMS 101 - Introduction to Sonography

Credit(s): 2

Lecture Hour(s): 2

Provides an overview of sonography for students interested in the Diagnostic Medical Sonography program with an introduction to pulse-echo imaging, general sonography, cardiac sonography, vascular technology and typical career opportunities.

DMS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DMS 205 - Small Parts Ultrasound

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 206, DMS 282.

Designed to teach specific knowledge of anatomy of the breast, thyroid, scrotum, prostate and the surrounding structures. The ability to identify pathology or to locate abnormalities is also an intricate part of the class.

DMS 206 - Vascular Ultrasound

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 205, DMS 282.

Covers basic positioning and scanning protocol of the vascular system. Review of the anatomy, hemodynamics and terminology unique to the vascular system with emphasis on the external carotid system, the upper and lower venous and arterial systems and the abdominal vasculature will be included.

DMS 221 - OB/GYN Ultrasound I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101.

Provides a systematic study of embryology to include development of the major organ systems, with correlation to sonographic imaging, at all stages of embryonic/fetal development and the surrounding environment and the ultimate mastery of the foundations of obstetric and gynecological sonography.

DMS 222 - OB/GYN Ultrasound II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 281.

Corequisite(s): DMS 232, DMS 242, DMS 283.

Provides a systematic study of embryology to include development of the major organ systems, with correlation to sonographic imaging, at all stages of embryonic/fetal development and the surrounding environment and the ultimate mastery of the foundations of obstetric and gynecological sonography.

DMS 231 - Abdominal Ultrasound I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101.

Offers a systematic study of the abdomen to include the function and development of the major organ systems with correlation to sonographic imaging and the surrounding environment. The student will master the foundations of sectional anatomy and abdominal sonography.

DMS 232 - Abdominal Ultrasound II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 241, DMS 281.

Corequisite(s): DMS 222, DMS 242, DMS 283.

Offers a systematic study of the gastrointestinal tract, pediatric abdomen, neonatal brain and transplanted organs. The student will review the necessary sterile technique preceding invasive and intraoperative procedures and will learn the applications of contrast agents in ultrasound. Other imaging techniques will be discussed, as well as the principles guiding the field of sonography. A mock registry examination will be administered to prepare the student for writing the national registry examination.

DMS 241 - Ultrasound Physics I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission and DMS 101

Presents the theoretical and practical approach to understanding the fundamentals of ultrasound physics, instrumentation, image characteristics, artifacts and bio-effects. The ergonomics of proper scanning techniques (setting up the cart, chair and room properly to avoid musculoskeletal injury) will also be presented.

DMS 242 - Ultrasound Physics II

Credit(s): 2

Lecture Hour(s): 1

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): DMS 221, DMS 231, DMS 241, DMS 282.

Corequisite(s): DMS 222, DMS 232, DMS 283.

Covers a detailed study of ultrasound physics and the application within the clinical setting. Manipulation of technique

controls, basic mathematical concepts, various Doppler modalities, equipment artifacts, QC/QA procedures, 3D fundamentals and bio effects are covered. Note: The comprehensive final is in a registry review format.

DMS 244 - Ultrasound Scanning Lab

Credit(s): 3

Vocational Lab Hour(s): 6

Prerequisite(s): Program admission. Enrollment in a DMS Program.

Prepares the sonography student for ultrasound Internship with an emphasis on applied instrumentation, ergonomics and image optimization.

DMS 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DMS 280 - Clinical Observation

Credit(s): 2.50

Internship Hour(s): 7.50

Prerequisite(s): BIO 201, BIO 202, RTE 255.

Corequisite(s): DMS 221, DMS 231, DMS 241 and DMS 244.

Prepares the beginning ultrasound student for clinical Internship under the direct supervision of a registered sonographer with a focus on introductory skills necessary for clinical Internship, to include instrumentation, scanning techniques and image evaluation. The student will spend seven hours per week at the clinical site for training in patient care and work efficiency in the clinical setting.

DMS 281 - Clinical Internship I

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 244, DMS 280.

Offers the initial clinical course wherein the fundamental principles of abdominal, OB/GYN and ultrasound physics will be applied under the direct supervision of a registered sonographer. The mastery of the foundations of instrumentation, scanning techniques, and image evaluation in sectional planes in abdominal and OB/GYN sonography will be stressed.

DMS 282 - Clinical Internship II

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 281.

Offers continued clinical experience for the ultrasound student. Application of the small parts didactic lectures will be applied and will include image evaluation and cross-sectional anatomy of the thyroid, breast and scrotum. The foundations of vascular anatomy, instrumentation, scanning techniques and image evaluation will be stressed. The student will spend 30 hours per week at the clinical site under the direct supervision of a registered sonographer.

DMS 283 - Clinical Internship III

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): DMS 282.

Continues clinical experience for the ultrasound student. Application of the topics covered in advanced didactic lectures to include an introduction to invasive procedures using ultrasound guidance. Sterile technique and standard precautions will be reviewed. The student will spend 30 hours per week at the clinical site under the direct supervision of a registered sonographer.

DMS 289 - Ultrasound Capstone

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): DMS 282.

Corequisite(s): DMS 283.

Prepares the sonography student to effectively search for a job and sit for the American Registry of Diagnostic Medical Sonographers examination in their specialty.

Diesel Power Mechanics

DPM 101 - Diesel Shop Orientation

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on maintaining a safe and clean working heavy-duty diesel shop. Emphasis is placed on the proper safe use and care of hand, electric, air and hydraulic tools. Covers how to clean equipment properly, handle and dispose of hazardous materials correctly, and apply mandated regulations. Emphasis is also placed on proper lifting equipment.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

DPM 103 - Diesel Engines I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers the theory and operation of diesel engines with emphasis on cylinder heads, valve train diagnosis, and repair. This course introduces the cooling system's importance in diagnosis and repair. This course meets Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 105 - Heavy Duty Powertrains I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on drive axles and universal joints of heavy duty trucks and equipment including operation, testing, removal, inspections, and repair of heavy duty drivelines, axles, and differentials. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 106 - Diesel Fuel Systems

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the theory of operation and repair of fuel injection systems. Provides laboratory assignments that involve disassembly, assembly, and service procedures on fuel system components.

DPM 111 - Preventive Maintenance I

Credit(s): 1.50

Vocational Lab Hour(s): 2.25

Enables the student to perform preventive maintenance on heavy equipment and trucks and complete appropriate maintenance records. Addresses the process of diagnostics and troubleshooting. Focuses on the importance of preventive maintenance.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

DPM 121 - Hydraulic Systems I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 2

Offers instruction on the basic fundamentals of hydraulics and their applications. Diagnosis, service, and testing along with safety are stressed within this course.

DPM 122 - Hydraulic Systems II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the repair, replacement, measurement, and adjustments of components including pumps, control valves, and cylinders. This course meets the Medium/Heavy Truck Master Service Technology (MTST) program accreditation standards.

DPM 140 - H/D Steering & Suspension I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Emphasizes lecture and related lab in the diagnosis and service of heavy duty mechanical and air suspension systems, wheels, tires, and pressure management systems.

DPM 170 - Lab Experience I

Credit(s): 4

Vocational Lab Hour(s): 6

Continues to build upon the principles that are expected to be understood by students.

DPM 171 - Lab Experience II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Continues to build upon the principles that are expected to be understood by students.

DPM 172 - Lab Experience III

Credit(s): 4

Vocational Lab Hour(s): 6

Continues to build upon the principles that are expected to be understood by students.

DPM 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DPM 203 - Diesel Engines II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers the operation and repair of diesel engines with emphasis on the cylinder block in big bore engines. This course includes the disassembly, inspection, and reassembly of diesel engines. This course meets the Medium/Heavy Truck Master Service Technology (MTST) program accreditation standards.

DPM 205 - Heavy Duty Powertrains II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers clutch and transmission problems. The course focuses on clutch and transmission operation, testing removal, rebuilding, inspection, repairing, and replacement. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 206 - Heavy Duty Brakes I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on the various braking systems incorporated in heavy duty trucks and heavy equipment including the diagnosis and service of hydraulic, mechanical, and electrical brake components. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 207 - Heavy Duty Brakes II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on general service and maintenance procedures for the heavy-duty truck air brake system and related pneumatic components including operational checks, performance testing, and verifying system compliance with regulations to the Federal Motor Vehicle Safety Standards (FMVSS No. 121). This course meets the Medium/Heavy

Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 222 - H/D Lighting & Instrumentation

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the diagnosis and repair of lighting systems found on medium and heavy duty trucks and equipment including inspection and testing of electrical circuits and interfacing through a databus with onboard computers. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 240 - H/D Steering & Suspension II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the diagnosis and service of heavy duty standard and air assisted steering along with chassis and frame alignment. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DPM 280 - Internship

Credit(s): 4

Internship Hour(s): 12

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 business location and with the direct guidance of the instructor.

Driving

DRV 130 - Preparing for CDL

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prepares students for the CDL written test with detailed study guides in conjunction with the Colorado CDL manual. Students will learn to conduct walk-around inspections and become familiar with the course layout and driving portion of the test.

DRV 132 - Trucks and Trailering

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Introduces students to the trucking industry, both over-the-road trucks and trailers and the operation of dump trucks used in construction and local commerce. Safe operations will be stressed, including securing loads on van, flat bed and drop bed trailers, watching for overhead hazards, backing safely, following standard fueling procedures, preventive maintenance and tire care.

DRV 134 - Trucking Laws & Regulations**Credit(s): 4****Lecture Hour(s): 3****Vocational Lab Hour(s): 1.50**

This class introduces students to the laws and regulations governing the operation of commercial trucks and buses, defensive driving techniques, proper operation of equipment, and safe operation of vehicles while behind the wheel.

DRV 136 - Vehicle Inspection & Maintenance**Credit(s): 3****Lecture Hour(s): 1****Vocational Lab Hour(s): 3**

Vehicle inspection and maintenance stresses the importance of pre-trip and post-trip inspections. Students will learn to identify and name the critical components on commercial vehicles and to recognize problems with lubricants, fluids, tires and wheels, electrical systems, brakes and the overall condition of the vehicle they intend to drive. This class will also prepare students to pass the pre-trip portion of the CDL driving test.

DRV 138 - Driver Training**Credit(s): 6****Vocational Lab Hour(s): 9**

Provides over-the-road driving experience with the driving instructor to prepare participants for the CDL driving test. This class drills students in safe driving procedures both on and off the road, including driving empty and loaded vehicles, proper turning and backing, appropriate use of brakes, shifting and observing speed limits, signals, road signs and port-of-entry procedures.

DRV 175-177 - Special Topics**Credit(s): 0-12**

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

DRV 275-277 - Special Topics**Credit(s): 0-12**

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Early Childhood Education**ECE 101 - Introduction to Early Childhood Education****Credit(s): 3****Lecture Hour(s): 3**

Provides an introduction to the profession of Early Childhood Education (ECE). Course content includes eight key

areas of professional knowledge related to working with young children and their families in early care and education settings - child growth and development; health, nutrition and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. This course addresses children ages birth through 8 years.

ECE 102 - Introduction to Early Childhood Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Focuses on a classroom Seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions and develop effective guidance and management techniques. Addresses ages birth through 8 years.

ECE 103 - Guidance Strategies for Young Children

Credit(s): 3

Lecture Hour(s): 3

Explores guidance theories, applications, goals and techniques, as well as factors that influence behavioral expectations of children. This course includes classroom management and pro-social skills development of young children in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 111 - Infant and Toddler Theory and Practice

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition. Focuses on birth through age 3.

ECE 125 - Science/Math and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Examines 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.

ECE 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ECE 178 - Workshop

Credit(s): 0.50-6

Lecture Hour(s): 0.50-6

Provides students with an experiential learning opportunity.

ECE 205 - Nutrition, Health and Safety

Credit(s): 3

Lecture Hour(s): 3

Focuses on nutrition, health and safety as key factors for optimal growth and development of young children. This course includes nutrition knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families for early childhood educators. This course addresses children ages birth through 12 years.

ECE 220 - ECE Curriculum Development: Methods and Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, and ECE 103.

Provides an overview of early childhood curriculum development. This course includes processes for planning and implementing developmentally appropriate environments, materials and experiences that represent best practices in early childhood (EC) program settings. This course addresses children ages birth through 8 years.

ECE 226 - Creativity and the Young Child

Credit(s): 3

Lecture Hour(s): 3

Provides an emphasis on encouraging and supporting creative self-expression and problem-solving skills in children. Explores creative learning theories and research. Focuses on developmentally appropriate curriculum strategies in all developmental domains. Addresses ages birth through 8 years.

ECE 238 - Ece Child Growth and Development

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101 and ECE 102.

Covers the growth and development of the child from conception through the elementary school years. This course emphasizes physical, cognitive, language, social and emotional domains of development as they pertain to the concept of the whole child. It also includes ways adults can provide a supportive early childhood care and educational environment through teamwork and collaboration.

ECE 240 - Administration of Early Childhood Care and Education Programs

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Provides foundational knowledge in early childhood program business operations, program development and evaluation. This course covers administrative skills, ethical decision making, risk and resource management, and components of quality Early Childhood Education (ECE) programs serving children ages birth through 12 years.

ECE 241 - Administration: Human Relations for Early Childhood Education

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ECE 101, ECE 102, ECE 103, ECE 220, and ECE 238.

Focuses on the human relations component of an early childhood professional's responsibilities. This course includes director-staff relationships, staff development, leadership strategies, family-professional partnerships and community interaction.

ECE 256 - Working with Parents, Families, and Community Systems

Credit(s): 3

Lecture Hour(s): 3

Examines 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. Effective activities and resources to support family involvement in the classroom will be created. This course addresses children ages birth through 8 years.

ECE 260 - The Exceptional Child

Credit(s): 3

Lecture Hour(s): 3

Presents an overview of critical elements related to educating young children with disabilities or special needs in the early childhood setting. Topics include typical and atypical development; legal requirements; research-based practices related to inclusion; teaming and collaboration; and accommodations and adaptations. This course examines how a disability or special need may impact a young child's learning process. This course addresses children ages birth through 8 years.

ECE 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ECE 288 - Practicum: Early Childhood Education

Credit(s): 3

Lecture Hour(s): 1

Practicum Hour(s): 4

Prerequisite(s): Successful completion of ECE 101 and ECE 102

Provides students with advanced field experience opportunities in early childhood education programs.

Economics

ECO 105 - Introduction to Economics

Credit(s): 3

Lecture Hour(s): 3

This course is a survey of economics. It is designed as a beginning economics class. The course covers economics theories, supply and demand, national income accounting, money and banking, market structures and contemporary economic issues.

ECO 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ECO 201 - Principles of Macroeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the American economy, stressing the interrelationships among household, business and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.

ECO 202 - Principles of Microeconomics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Studies the firm, the nature of cost and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.

ECO 245 - Environmental Economics: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Introduces contemporary environmental issues and policies meant to reduce environmental degradation. It introduces the concept of market failure due to pollution. The course covers government pollution reduction policies for air, water, and natural environments. It also covers analytical tools that are used to analyze the effectiveness of these policies. This is a statewide Guaranteed Transfer course in the GT-SS1 category. GT-SS1

ECO 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Education

EDU 221 - Introduction to Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on the historical, social, political, philosophical, cultural and economic forces that shape the United States public school system. Includes current issues of educational reform, technology as it relates to education and considerations related to becoming a teacher in the state of Colorado. Special interest will be paid to the topic of diversity in the K-12 school system.

EDU 234 - Multicultural Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on the need to recognize and understand the similarities and differences among people and develop a respect for all individuals and groups. This course provides opportunities to recognize the learning needs of children from different racial, ethnic, cultural, and socioeconomic groups and to encourage teachers to integrate multicultural and diversity teaching strategies into the school curriculum.

EDU 240 - Teaching the Exceptional Learner

Credit(s): 3

Lecture Hour(s): 3

Focuses on the individual differences and modifications that are necessary in the educational practices of the exceptional learner. Incorporates an additional 10-hour 0-credit, pre-professional, supervised, field based experience. Together with this experience, a portfolio and field experience reflective journal is required of all students.

EDU 261 - Teaching, Learning and Technology

Credit(s): 3

Lecture Hour(s): 3

Explores integration of technology instruction into teaching practices used in preschool through postsecondary (P-21) educational settings for all curriculum areas of content. This course reviews a variety of technologies with an emphasis on increasing student learning and retention of knowledge. The course also explores combining technology with several instructional methodologies to promote professional teacher dispositions related to technology-rich teaching.

EDU 263 - Teaching and Learning Online

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of EDU 221 and EDU 261 or Department Chair Approval.

Provides faculty with the knowledge and skills necessary to design, develop and deliver courses in a distance format. Focuses on assessment and evaluation methods and methods to incorporate interactive, collaborative and expanded learning activities.

EDU 288 - Practicum II

Credit(s): 0-12

Lecture Hour(s): 0-12

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.

Electricity Industrial/Commercial

EIC 101 - Job Training & Safety

Credit(s): 3

Lecture Hour(s): 3

Studies first aid, CDL, basic use and care of personal protective equipment, use and care of climbing equipment, daily inspection and basic use of motorized equipment.

EIC 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

EIC 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Electronics

ELT 106 - Fundamentals of DC/AC

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Corequisite(s): ELT 107.

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 107 - Industrial Electronics

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Corequisite(s): ELT 106.

Provides a basic knowledge of generators, motors and the solid state devices and digital techniques used for industrial control applications.

ELT 112 - Advanced DC-AC

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): MAT 108.

Continues to build on ELT 106 and covers advanced concepts of DC-AC circuits. Includes an expanded treatment of power supplies, dual-supply rectifier circuits and Zener diode voltage regulators. Emphasizes troubleshooting.

ELT 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ELT 252 - Motors and Controls

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Enables the student to study, construct, test and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions. Covers safety standards and preventive maintenance. 68 contact hours.

ELT 254 - Industrial Wiring

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focuses on the required and recommended practice for industrial wiring. The National Electrical Code is applied to industrial power and control wiring. Covers specification and installation of wiring, conduit, enclosures and termination components in lecture and applied during lab.

ELT 257 - Sensors and Transducers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 101 , ELT 106.

Enables the student to study, construct, test and evaluate methods of testing and controlling common industrial processes. Includes sensing systems, transducers, measurement techniques, systems interfacing, process control and data acquisition. 68 contact hours.

ELT 258 - Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes history, terminology, typical applications, hardware and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 259 - Advanced Programmable Logic Controllers

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): ELT 258.

Serves as the second in a two-course sequence and covers advanced topics and applications for programmable logic controllers (PLCs) as they are applied in robotics and automation. Includes advanced programming, diagnostics, Human Machine Interfaces (HMIs), introduction to automation networking and system integration. Incorporates lab and project activities that address designing, operating, monitoring, programming, analyzing, troubleshooting and repairing PLC-controlled lab trainers as well as actual industrial equipment.

ELT 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ELT 280 - Internship

Credit(s): 1-12

Internship Hour(s): 3-36

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 business location and with the direct guidance of the instructor.

ELT 289 - Capstone: Automated Systems

Credit(s): 3

Vocational Lab Hour(s): 4.50

Enables the student to plan, construct and evaluate a modified flexible manufacturing system using a programmable logic controller, industrial computer, robot and work cell peripherals. Addresses safety and emergency control procedures throughout this course.

Emergency Medical Services

EMS 115 - Emergency Medical Responder

Credit(s): 3

Lecture Hour(s): 3

Provides the student with core knowledge and skills to function in the capacity of a first responder arriving at the scene of an emergency, providing supportive care until advanced EMS help arrives.

EMS 121 - EMT Fundamentals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the Emergency Medical Technician (EMT) student to prehospital emergency care. The topics included in this course are Emergency Medical Services (EMS) systems, well-being of the EMT, communications, documentation, anatomy, airway management and patient assessment.

EMS 122 - EMT Medical Emergencies

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121. EMS 170.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. This course focuses on the integration of the physical exam, medical history and pathophysiology when assessing and treating the medical patient.

EMS 123 - EMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns will provide the student with the ability to assess and manage the trauma patient.

EMS 124 - EMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMS 121.

Provides the Emergency Medical Technician (EMT) student with the knowledge and skills required to modify the assessment, treatment and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials and terrorism.

EMS 126 - EMT Basic Refresher

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Student must have current Colorado EMT certification or EMS department approval.

Provides the student with a refresher course designed to meet the recertification requirements for the State of Colorado and/or a portion of the recertification requirements for National Registry.

EMS 127 - AEMT Special Considerations

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to the fundamental knowledge of growth, development and aging considerations in the emergency patient. The student will learn to use assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. These include the obstetric patient, neonatal patient, pediatric patient, geriatric patient and patients with special challenges. Learners will apply this knowledge to patient assessment and the development of a treatment plan in a simulated setting. This course also provides an overview of the principles of safe ground ambulance operations, incident management, multiple casualty incidents, air medical responses, vehicle extrication, hazardous material awareness and terrorism and disaster response. Learners will apply critical thinking skills to ensuring the safety of a scene and a plan for safe patient care and transportation.

EMS 129 - AEMT Pharmacology

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with a basis for making clinical decisions in the pharmacologic management of patients commonly encountered in the pre-hospital setting. Topics include the legal and ethical aspects of pharmacotherapy, roles, responsibilities and techniques associated with medication preparation and administration, the classification and naming of medications, pharmacokinetics, pharmacodynamics, and medication calculations. In addition the mechanism of action, dose, route(s) of administration, therapeutic effects, adverse effects, and therapeutic indications for medications within the Advanced Emergency Medical Technician scope of practice are discussed in detail.

EMS 131 - AEMT Fundamentals

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Provides the Advanced Emergency Medical Technician (AEMT) student with instruction in EMS systems, communications and documentation, pathophysiology, airway management, and the role of EMS in public health.

EMS 132 - EMS Intravenous / Intraosseous Therapy

Credit(s): 2

Lecture Hour(s): .25

Vocational Lab Hour(s): 1.9

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Current Colorado Certification as EMT or Department Chair Approval

Focuses on cognitive and skill practice for the Colorado scope of practice for the IV / IO endorsement as outlined in the Intravenous / Intraosseous Therapy and Medication Administration course curriculum.

EMS 133 - AEMT Medical Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the medical patient. This course provides instruction in the integration of physical exam findings, history findings and pathophysiology when assessing and treating the medical patient. Topics addressed include neurology, immunology, infectious diseases, endocrine disorders, cardiovascular disorders, toxicology, respiratory emergencies, hematology and renal disorders.

EMS 135 - AEMT Trauma Emergencies

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Acceptance into the AEMT Program.

Introduces the Advanced Emergency Medical Technician (AEMT) student to a fundamental knowledge of emergency care for the trauma patient. The student will learn how to utilize assessment findings to provide basic and selected advanced emergency care and transportation for the trauma patient.

EMS 170 - EMT Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

EMS 171 - AEMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Acceptance into the AEMT Program.

Builds on the Advanced Emergency Medical Technician (AEMT) student's fundamental knowledge of patient care in the clinical and field setting. The student will perform patient assessments through physical examination, and patient

interviews of health history and current illness. The student will then use those assessment findings to develop and carry out a patient treatment plan. This will include pediatric, geriatric and adult patients with a variety of presentations. The student will also survey each field scene for safety considerations and scene management.

EMS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

EMS 178 - EMS Seminar

Credit(s): 1

Lecture Hour(s): 1

Provides the student with the opportunity to explore local interests and needs in a less formal setting.

EMS 180 - EMT Clinical Internship

Credit(s): 2

Internship Hour(s): 6

Provides the Emergency Medical Technician (EMT) with a supervised clinical learning experience that goes beyond the initial EMT requirements for the State of Colorado Department of Health. Enables the student to work with an assigned preceptor for 90 hours of clinical experience to develop an understanding of the role and responsibilities of the EMT-Basic.

EMS 220 - Paramedic Refresher

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): EMT-P certification or eligibility for recertification.

Updates the EMT-P in four specific areas of prehospital emergency care. Includes trauma, medical, Advanced Life Support (ALS) and elective topics focused on ancillary issues in EMS.

EMS 225 - Fundamentals of Paramedic Practice

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 226.

Introduces the paramedic student to the advanced practice of prehospital care. This course covers professional behavior, medical ethics, legal issues, patient assessment, therapeutic communication, clinical decision making, and basic and advanced airway management. This course discusses EMS 's role in the healthcare continuum, professional communication, patient care documentation, IV fluid therapy and resuscitation, and the application of evidence based medicine. A brief overview of human anatomy, physiology and pathophysiology is included.

EMS 226 - Fundamentals of Paramedic Practice - Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 225, or have successfully completed EMS 225.

Complete all pre-course screening requirements, including drug test and criminal background check. Instructor approval. Serves as the lab experience to coincide with EMS 225 topics.

EMS 227 - Paramedic Special Considerations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to concepts in assessing and meeting the emergency care needs of the neonate, pediatric, geriatric and special needs patient. This course focuses on epidemiology, pathophysiology, assessment and treatment of these patient groups. Common medical and traumatic presentations are addressed. Relevant psychosocial and ethno cultural concepts and legal and ethical implications are integrated throughout.

EMS 228 - Paramedic Special Considerations Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 227.

Teaches the skills necessary for the paramedic to effectively assess and treat neonatal, pediatric, geriatric and special needs patients utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Special Considerations.

EMS 229 - Paramedic Pharmacology

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 230.

Introduces the paramedic student to advanced emergency pharmacology, pharmacokinetics and pharmacodynamics. This course will include laws affecting the use and distribution of medications, medication dosing, clinical calculations, routes of administration and discussion of common medication classifications to include indications, contraindications and side effects.

EMS 230 - Paramedic Pharmacology Lab

Credit(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 2

Prerequisite(s): Currently enrolled in EMS 229, or have successfully completed EMS 229.

Teaches the skills necessary for the paramedic to safely and effectively administer emergency medications. Serves as the companion course to Paramedic Pharmacology.

EMS 231 - Paramedic Cardiology

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Introduces the paramedic student to cardiovascular emergencies and the care of patients presenting with cardiovascular emergencies. Topics will include assessment of the cardiovascular system, ECG acquisition and interpretation both single lead and 12 lead, pathophysiology of cardiovascular disease and treatments indicated for a given disease.

EMS 232 - Paramedic Cardiology Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 231.

Teaches the skills necessary for the paramedic to effectively assess and treat patients presenting with cardiovascular emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Cardiology.

EMS 233 - Paramedic Medical Emergencies

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Corequisite(s): EMS 234.

Expands on the paramedic student's knowledge of medical emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan. This course will cover principles of epidemiology and pathophysiology related to common medical emergencies including: neurological, abdominal and gastrointestinal disorders, immunological, infectious diseases, endocrine disorders, psychiatric disorders, toxicological, respiratory, hematological, genitourinary, gynecological, nontraumatic musculoskeletal disorders and diseases of the eyes, ears, nose and throat.

EMS 234 - Paramedic Medical Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 233.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of medical emergencies utilizing skills and simulation scenarios. Serves as the companion course to Paramedic Medical Emergencies.

EMS 235 - Paramedic Trauma Emergencies

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): BIO 201, current Colorado Certification as an EMT with IV endorsement or higher and acceptance into the Paramedic Education Program.

Expands on the paramedic student's knowledge of trauma emergencies with the integration of assessment findings in formulating a field impression and implementing a treatment plan for an acutely injured patient. The course will provide an in depth evaluation of trauma to include: categorization of trauma patients, incidence of trauma, trauma systems, types of injury, trauma assessment, documentation in trauma, trauma scoring scales, trauma center designations and transfer of patients.

EMS 236 - Paramedic Trauma Emergencies Lab

Credit(s): 1

Vocational Lab Hour(s): 0.75

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): Completion of pre-course screening including drug screen and criminal background check.

Corequisite(s): EMS 235.

Teaches the skills necessary for the paramedic to effectively assess and treat patients with a variety of traumatic emergencies utilizing skills and simulation scenarios. Serves as the companion lab course for Paramedic Trauma Emergencies.

EMS 237 - Paramedic Internship Preparatory

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): EMS 225, EMS 227, EMS 229, EMS 231, EMS 233, EMS 235

Reviews concepts and techniques used in the prehospital setting.

EMS 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

EMS 280 - Paramedic Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 237.

Provides the first course of a proctored Internship to develop paramedic skills in a field setting. The student will gain experience in scene management as a member of an ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

EMS 281 - Paramedic Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): EMS 280.

Provides the second course of a proctored Internship to develop paramedic skills in a field setting. The student will gain

experience in scene management as a leader of the ALS team. The student will also apply advanced life support patient care knowledge to the assessment and treatment of patients.

EMS 285 - Independent Study

Credit(s): 1-6

Internship Hour(s): 3-18

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

EMS 310 - Clinical Assessment in the Behavior Setting

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces several assessment tools and techniques to utilize when assessing a client in a behavioral setting.

EMS 311 - Motivational Interviewing and De-escalation Techniques

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s):

Admission to the Advanced Paramedic Practitioner BAS program

SOC 231

Introduces the Motivational Interviewing (MI) concept as a client-centered and conversational method of communication designed to assist helping professionals address clients' ambivalence to change. The course will also introduce de-escalation techniques aimed at calmly communicating with an agitated client in order to understand, manage, and resolve their concerns.

EMS 312 - Trauma Informed Care and Assessment

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

SOC 231

Provides an overview of trauma-informed approaches, covering the types of trauma experienced, the impact of trauma on individuals, and principles of trauma-informed care.

EMS 330 - Community Advocacy and Outreach

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces the role and function of the Community Paramedic (CP). The course provides insight into Community Paramedic's specific role and function as a member of a health care team and part of a community. The course identifies the components of the role, defines the role, and explains "scope of service" for the position of CP. The role of the CP as an advocate for clients in the community is discussed.

EMS 331 - Community Assessment

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces students to the role of the Community Paramedic (CP) as a member of the health care team in community assessment. The course presents concepts related to mapping community health care services, describing the demographics of the community, and assessing their impact on the health of the potential patients. The course will provide an understanding of community health services in order to understand the health care needs in the community.

EMS 425 - Fundamentals of Advanced Paramedic Practice

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Presents advanced techniques for patient assessment and management. The course covers analysis of lab values associated with electrolytes, pharmacokinetics, and pulmonary gasses as they pertain to the pathophysiology of disease and patient management.

EMS 430 - Care and Prevention Development Strategies

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Introduces the responsibilities of the Community Paramedic (CP) for gathering appropriate patient/client information and maintaining accurate records, including documentation of encounters between the CP and the patient/client. The course presents information about the CP's role in assessing health care needs and appraising health care conditions.

EMS 433 - Advanced Paramedic Medical Care

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Provides advanced knowledge on assessing and managing patients with acute medical conditions and chronic medical conditions that have progressed in severity. This course focuses on in-depth pathophysiology of disease, advanced assessment, pharmacologic, and management required for patient care.

EMS 435 - Advanced Paramedic Trauma Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Provides students with the advanced knowledge required to assess and manage patients with acute medical conditions and chronic medical conditions that have progressed in severity. In-depth pathophysiology of disease will be presented in conjunction with the advanced assessment, pharmacologic and management knowledge required to care for patients.

EMS 489 - Capstone

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Admission to the Advanced Paramedic Practitioner BAS program

Provides students opportunity in a clinical setting for gathering and reviewing patient history, developing a care plan, providing appropriate treatment or counseling to the patient, and determining appropriate patient disposition.

Energy Technology

ENY 101 - Introduction to Energy Technologies

Credit(s): 3

Lecture Hour(s): 3

Introduces the energy technologies in use today and those that are in the research stage as possible alternatives. Presents technologies including active solar heating, passive solar heating, wind energy systems, biomass, photovoltaics, co-generation, low and high head hydro, hydrogen, geothermal, power towers and energy storage systems.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

ENY 102 - Building Energy Audit Tech

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches the principles of building energy audit techniques to include diagnostic software. During the course the student will perform an energy audit. As a result of the audit, he/she will be able to recommend application of the most appropriate energy-saving treatments such as insulation, windows, appliances and HVAC equipment.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

ENY 121 - Solar Photovoltaic Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Corequisite(s): ELT 106

Reinforces basic safety principles and provides detailed knowledge of photovoltaic components. Also covered is an overview of site analysis and special purpose tools. Upon successful conclusion of this course the student will be able to select proper components for a photovoltaic system based on regulatory codes and standards and individual component specifications.

ENY 132 - NABCEP Entry Level Prep Class

Credit(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required

Reviews the knowledge needed by the student to permit passing the NABCEP Entry level test. This is an overview class only and is not meant to be a replacement for the actual class.

ENY 165 - Solar Photovoltaic Field Lab Experience

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Department approval required

Onsite / hands-on training experience for students. Experiences include on-site installations, inspection tours, mock-roof training installations, industry association meetings, field experience workshops.

ENY 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Engineering

EGG 101 - Engineering Graphics I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): EGG 100.

Provides an application of engineering graphics as a communication form and a tool to solve three-dimensional design problems. Topics include orthographic, axonometric, and isometric projections, sections and auxiliary views, the geometry of lines, planes, and curved surfaces. This course is an introduction to PC-based, menu driven, 3D Computer Aided Design systems, spreadsheets, and freehand drawing.

EGG 102 - Introduction to Engineering Methodologies

Credit(s): 3

Lecture Hour(s): 2

Academic Lab Hour(s): 2

Prerequisite(s): MAT 121

Focuses on a variety of functions and the exploration of their graphs. Topics include: equations and inequalities, operations on functions, exponential and logarithmic functions, linear and non-linear systems, and an introduction to conic sections. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

EGG 140 - Engineering Projects

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches how to engage community stakeholders and use traditional research practices to identify, define, articulate, and design technical solutions to open-ended problems. The course utilizes teamwork on a semester-long iterative design project.

EGG 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

EGG 211 - Engr Mechanics I - Statics

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 201.

Focuses on the vector and calculus treatment of forces and force systems. Covers concurrent and noncurrent force systems. Includes calculating moments of friction, trusses, centroids and moments of inertia.

EGG 212 - Engineering Mechanics II (Dynamics)

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 201.

Focuses on vector and calculus treatment of the dynamics of particles and rigid bodies using Newton's Laws. Includes work-energy impulse momentum and free and forced oscillations.

EGG 230 - Thermodynamics

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of PHY 212.

Explores fundamental concepts and basic theory, including first and second laws of thermodynamics, properties, states, thermodynamic functions, cycles, mixtures, and chemical and phase equilibrium.

EGG 260 - Engineering Surveying I

Credit(s): 5

Lecture Hour(s): 2.50

Vocational Lab Hour(s): 3.75

Focuses on plane surveying including pacing, chaining, horizontal and vertical distances, care and use of engineering levels, transits and theodolites. Emphasizes the proper survey note procedures and surveying terminology. Covers various procedures in the calculation of bearings, azimuths and slope reduction.

EGG 261 - Engineering Surveying II

Credit(s): 5

Lecture Hour(s): 2.50

Vocational Lab Hour(s): 3.75

Prerequisite(s): EGG 260.

Introduces land surveying including legal terminology, riparian rights, legal descriptions, common law, statutory law, and the public land survey system. Addresses construction surveying, including notekeeping, construction etiquette, building layout, slope staking, and horizontal and vertical curves. Covers topographic surveying, x, y, z coordinates using total stations, and data collection.

EGG 271 - Theoretical Mechanics-Statics

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 122.

Emphasizes vectors, resolution and composition of forces in two and three dimensions, vector notation, free body diagrams, static equilibrium of rigid bodies, moments, couples, centroids, and moments of inertia.

EGG 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Engineering Graphic Technology

EGT 143 - Civil/Survey Drafting I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 202.

Focuses on Civil and Survey drafting skills necessary to produce document sets of land surveys/plats, legal descriptions, site layout, plan, profile & alignments, and contour maps.

EGT 205 - Geometric Dimension & Tolerance

Credit(s): 3

Lecture Hour(s): 3

Focuses on interpreting and applying geometric dimensioning and tolerancing (GDT) in machining or drafting per the ASME Y14.5 specification. Demonstrate and distinguish GDT through math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, run-out and location. Students examine and interpret the generation of a working drawing and how they are developed as a team effort between design, drafting, manufacturing and quality control.

EGT 243 - Civil/Survey Drafting II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 202.

Focuses on advanced civil and survey drafting skills. Students will create computer-aided drawings using traverses, legal descriptions, horizontal and vertical curves, land sections, and coordinates. Emphasizes field note interpretation.

EGT 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Engineering Technology

ENT 244 - Surveying III

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): CAD 101.

Focuses on advanced electronic surveying techniques. Introduces data collection and processing via computer software.

ENT 247 - Strength of Materials

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): EGG 271.

Serves as an extension of Statics and includes the study of mechanical properties of materials and their limitations in engineering design by the study of stresses, strains, torsion forces, shear forces, and deflections placed upon these materials.

English

ENG 113 - Business English

Credit(s): 3

Lecture Hour(s): 3

Introduces business English skills that are applicable to business correspondence. This course will review basic principles of grammar, punctuation, capitalization, spelling and word usage.

ENG 121 - English Composition I: GT-CO1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative and persuasive/argumentative writing.

ENG 122 - English Composition II: GT-CP2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

ENG 131 - Technical Writing I

Credit(s): 3

Lecture Hour(s): 3

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing and revising clear, readable documents for industry, business and government.

ENG 132 - Technical Writing II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ENG 131 with a grade of C or better.

Expands and refines the objectives of ENG 131, emphasizing formal presentations, both written and oral.

ENG 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

ENG 201 - Composition III: Writing for Public Discourse GT-CO3

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ENG 122 with a grade of C or better.

Provides students with skills necessary to enter into higher-level undergraduate academic discourse or professional workplace writing. ENG 201 extends students' rhetorical knowledge and develops critical reading, thinking and writing strategies in multiple specialized areas of discourse beyond what they encounter in ENG 122. In ENG 201, students deepen their rhetorical and writing skills by learning to analyze, synthesize and summarize complex texts and incorporate this information into specific writing conventions for a defined discipline. As a more advanced composition course, ENG 201 provides interested students with the opportunity to continue their exploration of expository writing with the added benefit of learning to write for distinct audiences (format, language, level of specificity, length and documentation style). Students will also learn effective editing and revising techniques, discipline-specific writing strategies, and how to extend their mastery of rhetorical strategies. While ENG 201 may be taught with the focus in a variety of disciplines (science writing, gender studies, literary criticism, writing in the humanities, business writing, political geography, philosophy, and so on), every discipline will allow students the opportunity to learn how to communicate with specialized audiences and adapt content to the needs of varying rhetorical situations.

ENG 221 - Creative Writing I

Credit(s): 3

Lecture Hour(s): 3

Teaches techniques for creative writing. Explores imaginative uses of language through creative genres (fiction, poetry, literary nonfiction) with emphasis on the student's own unique style, subject matter and needs.

ENG 222 - Creative Writing II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 221.

Examines techniques for creative writing by exploring imaginative uses of language through creative genres (fiction, poetry, and other types of creative production such as drama, screenplays, graphic narrative, or creative nonfiction) with emphasis on the student's own unique style, subject matter and needs.

ENG 228 - Writing for the Graphic Novel

Credit(s): 3

Lecture Hour(s): 3

Introduces story analysis and writing concepts used in writing for the graphic novel. Students explore the graphic novel as a vehicle for a unique, personal venue for written expression. Students explore the history and universal themes of the graphic novel as well as examine the principles of composition, different writing styles and processes used in the

development of the graphic novel. The application of writing skills, script development and revision processes necessary for the creation of an individual graphic work and thorough examination of course material in terms of writing style, process considerations and written themes are the primary focus. Students create outlines, scripts and a final written work for a graphic novel, focusing on unity of style and techniques for authoring appropriate to story lines.

ENG 230 - Creative Nonfiction

Credit(s): 3

Lecture Hour(s): 3

Introduces creative nonfiction and the writing of essays by using creative techniques, such as the personal essay, memoir, and literary journalism. This course provides techniques for analyzing and writing creative nonfiction, including the study of form and technique, and the creative writing process.

ENG 231 - Literary Magazine

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of ENG 121 with a grade of C or better or instructor approval.

Covers the production of a literary magazine through skill building and collaboration. This course introduces the editorial process involved in preparing a literary magazine for publication, including soliciting submissions; selecting material for publication (fiction, nonfiction, poetry, visual art, and other genres, such as drama); preparing a manuscript for publication, including design, layout, and pre-press production; and marketing the final product.

ENG 238 - Writing the Novel 1

Credit(s): 3

Lecture Hour(s): 3

Learn the art and craft of writing a literary novel through intensive study of the process of developing long form narrative. Explore techniques for outlining plot, developing characters, and establishing setting. Workshops will emphasize critical review of students' own creative writing and all participants will develop and refine their critical vocabulary and methodology.

ENG 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Entrepreneurship

ENP 105 - Introduction to Entrepreneurship

Credit(s): 3

Lecture Hour(s): 3

Explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy.

ENP 106 - Entrepreneurship Opportunity Analysis/Feasibility Study

Credit(s): 3

Lecture Hour(s): 3

Determines if a business venture is feasible based on personal, professional, and financial goals. This course will help to identify and analyze the present climate for business ideas through an industry analysis, target market analysis, competitive analysis, and financial analysis.

ENP 205 - Marketing for the Entrepreneur

Credit(s): 3

Lecture Hour(s): 3

Covers marketing strategies to launch and sustain an entrepreneurial venture. This course will include topics on marketing entrepreneurial ventures utilizing innovative and financially responsible marketing strategies. This course will help students to develop an understanding of entrepreneurial marketing goals and objectives. The course covers marketing principles and electronic marketing.

ENP 206 - Entrepreneurship Legal Issues

Credit(s): 3

Lecture Hour(s): 3

Explores legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships, and corporations. This course reviews articles of incorporation and the filing process, employment law, property, landlord tenant rights and duties, and business insurance.

ENP 207 - Entrepreneurship Financial Topics

Credit(s): 3

Lecture Hour(s): 3

Will cover topics such as financial planning for entrepreneurs, understanding tax considerations, understanding financial documents, financial ratio analysis, cash flow management, cost of capital and budgeting, raising capital, valuation, risk assessment, and venture exits.

ENP 209 - Entrepreneurship Business Plan

Credit(s): 3

Lecture Hour(s): 3

Guides students through the evaluation of a business concept. This course will include writing a comprehensive business plan. This course explores both traditional and lean business planning as a means to establish strategic vision and direction for a business. This course assesses the strengths and weaknesses of a business concept. This course will include identifying external and environmental factors related to business ownership and evaluating various resources available for funding small businesses.

Environmental Science

ENV 101 - Environmental Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources,

pollution and environmental protection. Using a holistic approach, students will study how the foundations of natural sciences interconnect with the environment. This course includes laboratory experience.

ENV 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Ethnic Studies

ETH 200 - Introduction to Ethnic Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the issues of race and ethnicity. Emphasizes ethnic relations in the United States as it pertains to four major groups – Americans of African, Asian, Latino and Native descent. Explores issues of racial and ethnic identity, racism and discrimination, stereotyping, prejudice, segregation, colonialism, integration and acculturation.

ETH 224 - Introduction to Chicano Studies

Credit(s): 3

Lecture Hour(s): 3

Introduces students to skills development in multicultural education. Covers Chicano history, migration and labor, education, law and Chicano culture.

ETH 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Facilities Maintenance Technology

FMT 101 - Custodial Techniques

Credit(s): 4

Lecture Hour(s): 4

Focuses on products and techniques of maintaining commercial or industrial buildings. Covers health standards and issues.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

FMT 102 - Facilities Maintenance - Electricity

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Focuses on electrical fundamentals as applied to residential and commercial facilities maintenance. Covers repair, service and maintenance of electrical systems and codes.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

FMT 111 - Housekeeping

Credit(s): 1.50

Lecture Hour(s): 1

Vocational Lab Hour(s): 0.75

Introduces components and practices that provide the part-time custodian with the basic knowledge to effectively perform all job-related work assignments in general housekeeping.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

FMT 128 - Custodian Personnel Management

Credit(s): 1.50

Lecture Hour(s): 1.50

Trains school custodians in basic personnel management and emphasizes leadership and team-building skills for the first-time manager.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

FMT 150 - Job Survival Skills

Credit(s): 1

Lecture Hour(s): 1

Learn job survival skills that will give you a competitive edge in the workplace. This course of instruction will provide the necessary skills to obtain and keep a job in the custodial trades. Tools taught will be stepping stones for advancement on the job. Topics covered include self-esteem, ethics, responsibility, leadership equity/diversity, communication skills, time management, workplace etiquette, how to deal with the unexpected, and resumes/interviews.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

FMT 250 - Cleaning Chemicals

Credit(s): 1

Lecture Hour(s): 1

Using chemicals safely is the focus of this course. How to select the proper cleaning chemicals, cleaning agents and disinfectants is taught. OSHA standards are included.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Fire Science Technology

FST 100 - Firefighter I

Credit(s): 9

Lecture Hour(s): 6

Vocational Lab Hour(s): 4.50

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 101 - Firefighter II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): FST 100.

Addresses the requirements necessary to perform at the second level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level II, standard.

FST 102 - Principles/Emergency Services

Credit(s): 3

Lecture Hour(s): 3

Provides an overview 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; fire departments as part of local government ; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FST 103 - Fire Behavior & Combustion

Credit(s): 3

Lecture Hour(s): 3

Explores the theories and fundamentals of how and why fires start, spread and are controlled.

FST 105 - Building Construction for Fire Protection

Credit(s): 3

Lecture Hour(s): 3

Provides the 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.

FST 106 - Fire Prevention

Credit(s): 3

Lecture Hour(s): 3

Provides 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.

FST 107 - Hazardous Materials Operations (Level I)

Credit(s): 3

Lecture Hour(s): 3

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 108 - Firefighter Professional Preparation

Credit(s): 1

Lecture Hour(s): 1

Articulates strategies for creating success in a career as a Firefighter. This course discusses requirements in professionalism, emergency response in a multicultural environment, the psychological rigors and stressors typical of the vocation, and use of potential resources to attain career goals and plans.

FST 109 - Occupational Safety & Health

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout emergency services.

FST 110 - Job Placement and Assessment

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Addresses all aspects of the Fire Service entrance examination process and especially emphasizes various components of the exam, including the written, physical abilities and oral interview. The objective of this class is to help increase the entrance firefighter candidate's chance of obtaining a career in the Fire Service.

FST 121 - Technical Rope Rescue

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Provides students with the knowledge and skills to handle low and high angle rescues using rescue rope and associated hardware. The course takes students from the introductory level up to advanced skills in three separate sessions. Belay, rappel and raising systems are taught in a real-life setting in both high- and low-angle rescue environments. Students are also taught care and maintenance of equipment.

FST 126 - Vehicle Extrication Awareness Level

Credit(s): 1

Vocational Lab Hour(s): 1.50

Provides the student with entry level knowledge and skills to safely operate at the scene of a vehicle/machinery extrication. Training in this course represents the minimum level of training needed to respond to a vehicle extrication incident.

FST 127 - Vehicle Extrication Operations Level

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Expands and refines the objectives of FST 126. Students shall be capable of hazard recognition, equipment use and techniques necessary to operate safely and effectively at incidents involving persons injured or entrapped in a vehicle or machinery.

FST 128 - Vehicle Extrication Technician Level

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Expands and refines the objectives learned in FST 127. Training in this course represents the highest level of operation at the rescue scene involving vehicle extrication. Students shall be capable of hazard recognition, equipment use and techniques necessary to operate and effectively supervise at incidents involving persons injured or entrapped in a vehicle or machinery.

FST 132 - Structural Collapse

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Covers the various types of construction, causes for structural collapse, types of structural collapse, and identification of structural component failures. Mitigation of a structural collapse response and other associated hazards through use of ICS, proper size-up, building failure analysis, monitoring techniques, shoring systems and associated equipment, proper search and recovery techniques, and personal protective equipment requirements.

FST 133 - Trench Rescue

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Covers trench types; trench versus excavation rescues; soil types encountered at trench rescue sites; collapse dynamics; ICS/IMS; equipment, materials and tools used for rescue operations; personal protection issues; trench shoring; and victim extrication.

FST 134 - Confined Space Rescue

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Covers the definition of confined space; OSHA considerations and permit requirements; monitoring instruments; ICS/IMS; victim contact; breathing apparatus such as SABA/SCBA; communications and equipment, e.g., radio/hardwired; patient packaging; rescue versus recovery; and patient extrication.

FST 135 - Ice Water Rescue

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Covers types of ice encountered in ice water rescue; ICS/IMS; ice strength; patient evaluation and contact; rescue

equipment; ice water rescue techniques; rescue suit safety; belay line and shore support; hypothermia; Zodiac boat techniques; and victim rescue.

FST 136 - Swift Water Rescue

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Covers fast water hazards and risk analysis relating to swift water rescue; low head dam; ICS/IMS; victims in vehicles; rescue equipment and techniques; rope systems and throw bags; reach/throw/go; rescuer safety and shore support; and personal protective equipment.

FST 150 - Introduction to Fire Prevention Education

Credit(s): 3

Lecture Hour(s): 3

Focuses on conducting prevention and education needs assessment, targeting audiences; development and delivery of prevention and education programs. Includes methods of conducting fire prevention and safety inspections.

FST 151 - Driver-Operator

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provides the student with the basic knowledge and skills to safely operate fire apparatus according to the NFPA professional standard. Enables the student to display and demonstrate knowledge of fire apparatus, operation of apparatus, pumps and pumping, hydraulics calculations, maintenance and testing.

FST 160 - Candidate Physical Abilities Test Prep

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prepares students for the CPAT test and other related fitness testing for entry level firefighters. The course will focus on aerobics and strength training to assist students in passing a CPAT test or any related fitness entry level test. Students will also be trained on how to use various firefighting tools as they pertain to how the tools will be used in the CPAT or other related entry-level fitness test.

FST 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

FST 201 - Instructional Methodology

Credit(s): 3

Lecture Hour(s): 3

Identifies the 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. Fire Instructor I State Certification is possible.

FST 202 - Strategy and Tactics

Credit(s): 3

Lecture Hour(s): 3

Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

FST 203 - Fire Hydraulics & Water Supply

Credit(s): 3

Lecture Hour(s): 3

Provides a 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.

FST 204 - Principles of Code Enforcement

Credit(s): 3

Lecture Hour(s): 3

To provide the students with the fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program.

FST 205 - Fire Investigation I

Credit(s): 3

Lecture Hour(s): 3

Provides the student with the 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 firesetter, and types of fire causes.

FST 206 - Fire Co Superv and Leadership

Credit(s): 3

Lecture Hour(s): 3

Addresses the requisite knowledge and skills required to perform at level 1 as identified in National Fire Protection Association (NFPA) 1021, Fire Officer Professional Qualifications. Areas of focus include: fire department organization, company officer traits, roles and responsibilities, communications practices, administrative functions, safety, health and wellness, training, fire prevention, human resources management, and incident management and operations. The course prepares the learner for the Colorado Fire Officer I State Exams and JPR evaluations.

FST 207 - Firefighting Strategy and Tactics II

Credit(s): 3

Lecture Hour(s): 3

Focuses on tactics and strategies associated with transportation emergencies and fires, high-rise fires, below-ground incidents, confined space emergencies and special rescue situations.

FST 208 - Fire Plans Review and Acceptance Testing

Credit(s): 2

Lecture Hour(s): 2

Instructs the student on how to review building plans submitted to a fire department, acceptance testing procedures, implementation of a fire inspection program, and how to deal effectively with the public for fire prevention and education activities.

FST 209 - Fire Protection Systems

Credit(s): 3

Lecture Hour(s): 3

Provides information relating to the 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.

FST 251 - Legal Aspects of Fire Service

Credit(s): 3

Lecture Hour(s): 3

Introduces the federal, state and local laws that regulate emergency services, national standards influencing emergency service, standard of care, tort, liability, and a review of relevant court cases.

FST 252 - Fire Investigation II

Credit(s): 3

Lecture Hour(s): 3

Provides the student with advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.

FST 253 - NIMS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): FST 202.

Focuses on the National Incident Management System, including fire ground management and resource management. Multiagency coordination systems are discussed; organization preparedness for large scale emergencies, communication and information are addressed. The course concludes with a review of the National Response Plan.

FST 254 - Hazardous Materials Technician Level

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): FST 107.

Focuses on techniques associated with hazardous materials mitigation, the use of monitoring devices, components of a mitigation teams, command and control of hazardous materials incidents.

FST 255 - Fire Service Management

Credit(s): 3

Lecture Hour(s): 3

Serves as the basic management course for present and potential members of the fire and emergency service professions. The course introduces the student to current fire service management practices, challenges, and real-world applications from the fire officer's point of view. The course addresses decision-making, problem solving, necessary communication skills, conflict resolution, effective leadership skills, as well as the role of the fire service manager in supervising personnel and programs.

FST 257 - Fire Department Administration

Credit(s): 3

Lecture Hour(s): 3

Focuses on the operations of volunteer and combination fire departments, compliance with standards and ordinances, funding, recruiting, hiring and retaining employees, funding and budgeting, organizational planning and public relations.

FST 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Fire Science Wildland

FSW 100 - S-190 Introduction to Wildland Fire Behavior

Credit(s): 1

Lecture Hour(s): 1

Provides instruction in the primary environmental factors that affect the start and spread of wildfire and recognition of potentially hazardous situations. This course can be taught in conjunction with or prior to FSW 101 - S-130 Firefighting Training.

FSW 101 - S-130 Firefighting Training

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Provides entry-level firefighter skills. A version of the L-180, Human Factors on the Fire line, is included as part of the course. Credit should be issued for S-130.

FSW 102 - S-131 Firefighter Type I

Credit(s): 0.50

Lecture Hour(s): 0.50

Designed to meet the training needs of the Firefighter Type 1. It contains several tactical decision modules designed to facilitate learning the objectives and class discussion. This course is designed to be interactive in nature. Topics include fire line reference materials, communications and tactical decision making.

FSW 103 - D-110 Dispatch Recorder with Introduction to Ross

Credit(s): 1

Lecture Hour(s): 1

Trains potential dispatch recorders on the structure of an expanded dispatch organization and how to effectively perform within that organization. Course will provide the student with a working knowledge of the purpose and process of completing the resource order and other dispatch forms. It will also provide instruction on established dispatch procedures.

FSW 104 - I-100 Introduction to ICS

Credit(s): 0.25

Lecture Hour(s): 0.25

Address the ICS organization basic terminology and common responsibilities. It provides a foundation upon which to enable entry-level personnel to function appropriately in the performance of incident-related duties. For students continuing through more complex ICS modules, this course may be used as pre-course work.

FSW 105 - L-180 Human Factors on the Fire Lane

Credit(s): 0.25

Lecture Hour(s): 0.50

Designed for unit-level supervisors to use when delivering orientation training to new crewmembers. Presentation of the course involves a few short lecture segments but the primary content is delivered by video and is supported with small group exercises. Topics include situation awareness, basic communication responsibilities, attitude and stress barriers, decision-making processes, and teamwork principles.

FSW 140 - S-200 Initial Attack Incident Commander

Credit(s): 1

Lecture Hour(s): 15

Corequisite(s): Qualified as a single resource boss.

Designed to meet the training needs of the ICT4. It is presented in a lecture/discussion format and supplemented with group exercises. The six instructional units cover: Readiness and Mobilization; Size-up, Planning, and Ordering; Deployment and Containment; Administrative Requirements; and Post-Fire Evaluation.

FSW 143 - S-212 Wildfire Chain Saws

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Provides 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 provide hands-on cutting in surroundings similar to fire line situations.

FSW 153 - S-290 Intermediate Wildland Fire Behavior

Credit(s): 2

Lecture Hour(s): 2

Designed to prepare the prospective supervisor to undertake safe and effective fire management operations.

FSW 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

FSW 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Floral Design

FLD 100 - Introductory Floral Design

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Teaches students working in the floral design Industry a working knowledge of retail flower shop management and procedures. Introduces students to the basic principles and elements of floral design that can be used for personal or professional industry applications. Students also learn basic care and identification of fresh flowers, design, purchasing and pricing of various types of floral compositions.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Geography

GEO 105 - World Regional Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Examines the spatial distribution of environmental and societal phenomena in the world's regions. Environmental phenomena includes topography, climate, and natural resources. Societal phenomena includes patterns of population and settlement, religion, ethnicity, language, and economic development. This course also analyzes the characteristics that define world regions and distinguishes them from each other. This course examines the relationships between physical environments and human societies, and examines globalization, emphasizing the geopolitical and economic relationships between more developed and less developed regions. This is a statewide Guaranteed Transfer course in the GT-SS2 category.

GEO 106 - Human Geography: GT-SS2

Credit(s): 3

Lecture Hour(s): 3

Introduces geographic perspectives and methods in the study of human societies by examining the spatial characteristics of populations, language, religion, ethnicity, politics, and economics. This course examines the relationships between physical environments and human societies. This is a statewide Guaranteed Transfer course in the GT-SS2 category. GT-SS2

GEO 111 - Physical Geography: Landforms with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces students to the principles of Earth's physical processes, emphasizing landforms, soils and hydrology. Examines the formation and distribution of landforms, such as mountains, valleys and deserts, and their shaping by fluvial and other processes. The course incorporates an integrated process of lectures, discussion and laboratory assignments.

GEO 112 - Physical Geography: Weather and Climate with Lab: GT-SCI

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the principles of meteorology, climatology, world vegetation patterns and world regional climate classification. The course includes investigating the geographic factors which influence climate, such as topography, location, elevation, winds and latitude.

GEO 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

GEO 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Geography Information Systems

GIS 101 - Introduction to GIS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Surveys the development, application and use of geographic information systems (GIS).

GIS 105 - Arcview GIS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): GIS 101 or Department Chair Approval.

Introduces the fundamentals of GIS including cartographic principles, hardware, and software requirements, raster, and vector data structures, and data sources, accuracy, and acquisition, spatial data databases and spatial analysis. Hands-on experience with vector data utilizing ArcView software includes use of map scales, coordinate systems, determining spatial relationships, map features and attributes, map overlays, and basic operations with databases. Student will learn to create charts and graphs and full map layouts. A final project is required.

GIS 110 - Introduction to Cartography for GIS

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): GIS 105 or Department Chair Approval.

Examines a broad range of map types, emphasizing maps as a communication system with both symbology and specific organizational hierarchies. Discussion and demonstration focuses on essential cartographic principles and practices used for designing maps, with emphasis on cartographic principles resulting in the effective map communication, qualitative messages and quantitative information.

GIS 131 - Global Positioning Systems for Global Information Systems

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): GIS 110 or Department Chair Approval.

Introduces the terminology, hardware and technological principles of GPS. Students will receive an introduction in the

fundamentals of using a basic hand-held GPS unit. Data will be integrated with pre-existing spatial data. Fundamentals of mapping and map reading will be covered. Garmin GPS units will be used initially, followed with Trimble GeoExplorers and Pathfinder Office software. Final student projects integrate GPS data within ArcView projects.

GIS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

GIS 212 - GIS Remote Sensing

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): GIS 131 or Department Chair Approval.

Introduce concepts and procedures used in remote sensing with an emphasis on integration of aerial and satellite imagery into GIS applications. Apply the science of remote sensing and imagery interpretation to understand local to global earth observation characteristics based on remotely sensed data and logical interpretation.

GIS 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Geology

GEY 111 - Physical Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Introduces the major topics of geology. Course content encompasses Earth's materials, structure, and surface landforms. Geologic time and the geologic processes responsible for Earth's internal and external features are covered. This course includes laboratory experience.

GEY 112 - Historical Geology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Covers the development of Earth through the vast span of geologic time. Emphasis is on the investigation and interpretation of sedimentary rocks and features, the record of ancient environments, fossil life forms, and physical events in Earth's history within the framework of plate tectonics. This course includes laboratory experience.

GEY 135 - Environmental Geology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Introduces the subject of geology as it relates to human activities. Geologic hazards such as floods, landslides,

earthquakes, and volcanoes are investigated. Mineral, energy, soil, and water resources are discussed in terms of their geologic formation and identification, usage by society, and associated environmental impacts. Land use issues, waste, and pollution are also examined.

GEY 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

GEY 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Health Information Technology

HIT 101 - Health Information Management Science

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 102 or Department Chair Approval.

Introduces the student to the health record, from inception to completion. Emphasis is on content and regulations impacting the health record in the various settings. Other areas to be discussed include the electronic health record and responsibilities of the health information department. This course also examines various health care delivery systems and healthcare practitioners. Professional and practice-related ethical issues are discussed, as well as evaluating the consequences of a breach of healthcare ethics.

HIT 102 - Medical Vocabulary for Documentation

Credit(s): 3

Lecture Hour(s): 3

Introduces medical vocabulary through the study of word structures and phrases with reinforcement in writing narratives and the study of medical records. Anatomy and physiology of all body systems are reviewed with discussion of related diseases, diagnostic procedures, treatments and drugs. Emphasis on learning to read, pronounce and interpret medical documentation prepares the student for document review in HIT fields. Illustrates the importance of HIPAA in both physical and electronic dissemination of medical records.

HIT 105 - Principles of Healthcare Reimbursement

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Provides students with the knowledge needed to perform necessary tasks involved in healthcare reimbursement systems, including payment methodologies, use of clinical data and compliance.

HIT 111 - Health Data Management and Information Systems

Credit(s): 3

Lecture Hour(s): 3

Introduces 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. Students will study the roles and relationships, in the transformation of data into meaningful information, through research, vital statistics and epidemiology. Data quality, integrity, collection, access and retention will also be emphasized.

HIT 112 - Legal Aspects for Health Records

Credit(s): 2

Lecture Hour(s): 2

Introduces the student to the legal system and defines the role of the healthcare professionals. Specific federal and state laws are identified and discussed as they relate to release of medical information.

HIT 120 - Working with Health IT Systems

Credit(s): 4

Lecture Hour(s): 4

Provides hands-on experience with a computerized HIT system/electronic health record, utilizing contemporary online systems with simulated data. The course will include additional lecture, project work and practice in the use of HIT systems. Students will play the role of practitioners using these systems and experience threats to security and gain an appreciation of the need for standards and high levels of usability. Students will also learn how errors can occur and ways to minimize them.

HIT 121 - Networking and Health Info

Credit(s): 2.50

Lecture Hour(s): 2.50

In-depth analysis of data mobility, including the hardware infrastructure (wires, wireless and devices supporting them), the ISO stack, standards, Internet protocols, federations and grids. The Nationwide Health Information Network and other nationwide approaches to distribution of electronic health records by health information exchanges will also be explored. Also covered are the functional models and certification of the Electronic Health Record and Data Standards for these records.

HIT 122 - Workflow Fund of Healthcare

Credit(s): 3

Lecture Hour(s): 3

Introduces the fundamentals of healthcare workflow, process analysis and redesign in various healthcare settings. Health information technology culture changes (IT/clinicians) and project management, including HIT system selection, design, implementation and support will also be covered. Electronic health record/practice management systems will be evaluated for quality and process improvement, clinical decision support, health information exchange, public health, and population health management in ambulatory and alternative care settings.

HIT 123 - Configuring EHRs

Credit(s): 3

Lecture Hour(s): 3

A practical experience with a laboratory component, addressing approaches to assessing, selecting and configuring EHRs to meet the specific needs of customers and end-users.

HIT 124 - Public Health IT

Credit(s): 1

Lecture Hour(s): 1

Prepare students for working with public health agencies, an overview of specialized public health applications such as registries, epidemiological databases, bio surveillance and situational awareness and emergency response. Includes information exchange issues specific to public health.

HIT 150 - Healthcare Delivery Systems

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the healthcare delivery system at the national, state and local level. The course provides healthcare education, including applicable regulations and standards, reimbursement methods, and evolution and current trends in healthcare delivery.

HIT 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HIT 188 - Health Information Practicum I

Credit(s): 2

Practicum Hour(s): 4

Prerequisite(s): HIT 252 or Department Chair Approval.

Provides a directed clinical experience which focuses on the practice of skills related to the application of legal principles, record analysis and abstraction and record retention and retrieval.

HIT 220 - ICD Coding I

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232

Introduces the ICD coding classification system and provides a basic understanding of ICD structure, conventions and principles utilized in code assignment. The student will be introduced to the official coding guidelines. They will apply knowledge of anatomy, physiology, pathophysiology and pharmacology in the assignment of diagnostic and procedural codes.

HIT 222 - Quality Management

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the basic concepts of quality management in the healthcare environment. Requirements by regulatory agencies regarding quality documentation, utilization and risk management are discussed. Data collection, verification, analysis, descriptive statistics and presentation techniques will be studied. The course emphasizes the ongoing use of objective data and feedback to improve processes, systems and patient outcomes. Analysis of documentation for various purposes is also covered.

HIT 225 - Health Information Management

Credit(s): 3

Lecture Hour(s): 3

Concentrates on the principles of management as they relate to the administration of the health information management department as part of a healthcare organization.

HIT 241 - CPT Coding Basic Principles

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): HPR 232.

Provides the student with skill sets to apply the current procedural terminology (CPT) and HCPCS code set principles and guidelines for application in reporting/communicating information and data about clinical services provided to patients by healthcare providers. Includes understanding what the CPT nomenclature is, how and why it is used, and guidelines for each code category and how it is applied to represent services within each code category.

HIT 252 - Coding II for Certification

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): HIT 220, HIT 241

Covers medical necessity and coding issues using ICD and CPT coding principles. Students should already possess a fundamental understanding of the CPT, ICD and HCPCS coding principle. Intensive coding application will be achieved through the use of medical records, case studies and scenarios. DRGs, APCs, RUGs, RBRVs and the Correct Coding Initiative (CCI) will also be covered in this class.

HIT 261 - Healthcare Software

Credit(s): 3

Lecture Hour(s): 3

This course covers basic computer system architecture, file structure and design for healthcare settings. Topics include system analysis, design, security and selection for a variety of hardware environments. This course provides students with a review of computer fundamentals and the fundamentals of the electronic health record and an introduction to the information systems life cycle with software application. Security and confidentiality issues, concerns and implications in relation to the electronic health record will be addressed.

HIT 264 - Data Visualization

Credit(s): 4

Lecture Hour(s): 4

Introduces data visualization tools and techniques software, as well as increasing proficiency in Excel. Students will be able to tell a story with data, communicating observations in a clear, compelling way that provides meaning and explanation. As part of this course, students are also required to complete a professional practicum experience to apply classroom knowledge in a clinical setting.

HIT 265 - Data Analytics Applications

Credit(s): 3

Lecture Hour(s): 3

Deepens understanding of current and emerging practices in the application of data analytics. Topics include clinical, financial, operations and qualitative analytics; trends in practices; customer expectations; regulations that affect analytics; and ethical issues in gathering, analyzing and reporting healthcare data. Explore the roles and applications of descriptive, retrospective and prescriptive analytics in various settings.

HIT 268 - Certification Test Preparation

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares students who have made the decision to obtain a national health information technology credential by completing national credentialing exams.

HIT 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HIT 288 - Health Info Practicum II

Credit(s): 2

Internship Hour(s): 6

Focuses on the ability of the student to apply classroom knowledge in a clinical setting, practice professionalism, gain insight into the functions of the department and understand the relationship of health records to the facility as a whole. Emphasis is on the ability to act independently, complete assigned projects and demonstrate a good understanding of health information management concepts.

HIT 289 - HIT Capstone Course

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department approval required

Provides a demonstrated culmination of learning within a given program of study.

Health & Wellness

HWE 100 - Human Nutrition

Credit(s): 3

Lecture Hour(s): 3

Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micro nutrients and their effects on the functions of the human body. Special emphasis is placed on the application of wellness, disease, and lifespan as it pertains to nutrition.

HWE 103 - Community First Aid and CPR

Credit(s): 1

Lecture Hour(s): 1

Prepares the student for certification in CPR and Basic First Aid. Skills will include basic life support, airway obstruction, control of bleeding, shock and patient care for the unconscious.

HWE 108 - Weight Loss

Credit(s): 1

Vocational Lab Hour(s): 1.50

Focuses on combining a healthy diet and exercise to shed unwanted pounds and inches. The course will include classroom sessions that will focus on personal habits including diet that lead to weight gain and exercise session in the Fitness Center.

HWE 111 - Health and Fitness

Credit(s): 3

Lecture Hour(s): 3

Studies health and fitness in the US today. The course will look at personal health issues, managing stress, nutrition and health lifestyles.

HWE 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HWE 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Health Professional

HPR 100 - Introduction to Health

Credit(s): 3

Lecture Hour(s): 3

Provides an exploratory course for students interested in a health career. Basic health skills such as vital signs and CPR will be included.

HPR 102 - CPR for Professionals: Professional Rescuer

Credit(s): 0.50

Lecture Hour(s): 0.50

Meets the requirement for American Red Cross Professional Rescuer CPR or American Heart Association Basic Life Support for those who work in emergency services, healthcare and other professional areas. Material presented in the course is basic patient assessment, basic airway management, rescue breathing, and CPR for infant, children and adult patients.

HPR 106 - Law & Ethics for Health Professions

Credit(s): 2

Lecture Hour(s): 2

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

HPR 108 - Dietary Nutrition

Credit(s): 1

Lecture Hour(s): 1

Studies the basic nutritional principles in clinical practice in health care. The course will cover factors which influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states.

HPR 112 - Phlebotomy

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): Program admission required.

Covers the duties associated with the practice of venipuncture, capillary puncture, and special collection procedures. This course provides experience with quality control, infection control, safety procedures, as well as laboratory computer systems. Successful completion of this course, with an adequate number of blood draws, will constitute eligibility for application for a National Phlebotomy Registry Examination.

HPR 113 - Advanced Phlebotomy

Credit(s): 4

Lecture Hour(s): 2.50

Vocational Lab Hour(s): 2.25

Prerequisite(s): Program admission required.

Focuses on advanced phlebotomy skills including laboratory protocols, specimen processing and point of care documentation. This course provides opportunities for the student to master learned skills.

HPR 117 - Anatomical Kinesiology

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): BIO 201

Studies the Anatomical Bases of Human Movement.

HPR 119 - Computers in Healthcare

Credit(s): 2

Lecture Hour(s): 2

Introduces basic computer technology, file management, and PC system components as used in Health Care settings. Provides an overview of word processing, spreadsheets, and personal information management software. Introduces the Electronic Health Record (EHR), its content, EHR software, EHR management, patient management and scheduling, and privacy and security of the EHR.

HPR 120 - ACLS

Credit(s): 1

Lecture Hour(s): 1

Presents the required material for ACLS completion. It will cover arrhythmias, medications, therapeutic modalities for life-threatening arrhythmias, airway management, and other treatment modalities used in cardiac and respiratory arrest.

HPR 121 - ACLS Recertification

Credit(s): 0.50

Lecture Hour(s): 0.50

Presents the required material for ACLS recertification. It will cover rhythm recognition, cardiac drugs, cardiac monitors, and case-based scenarios.

HPR 122 - ACLS Instructor Course

Credit(s): 0.50

Lecture Hour(s): 0.50

Presents information on how to obtain a complete health history, assessment skills of inspection, palpation, percussion, and auscultation are practiced in class.

HPR 130 - Pediatric Advanced Life Support

Credit(s): 1

Lecture Hour(s): 1

Provides students the needed information and skills as required by health care agencies for pediatric emergencies.

HPR 131 - Pediatric Advanced Life Support Renewal

Credit(s): 0.50

Lecture Hour(s): 0.50

Provides students with updates and skill practice to complete renewal requirements for PALS completion card.

HPR 132 - Pediatric Advanced Life Support Instructor

Credit(s): 1

Lecture Hour(s): 1

Provides the current PALS provider the information and practice needed to instruct PALS initial and renewal courses.

HPR 138 - Intro to Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

HPR 144 - Comprehensive Medical Terminology

Credit(s): 3

Lecture Hour(s): 3

Provides an in-depth study of the structure of medical terms with emphasis on using and combining common prefixes, roots and suffixes. This course includes terms related to major body systems, oncology, and psychiatry as well as clinical laboratory and diagnostic procedures, and imaging, and provides accepted pronunciation of terms and relative use in the healthcare setting.

HPR 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HPR 178 - Medical Terminology

Credit(s): 1-4

Lecture Hour(s): 1-4

Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

HPR 180 - Internship

Credit(s): 2

Internship Hour(s): 6

Prerequisite(s): Program admission and HPR 112

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 business location and with the direct guidance of the instructor.

HPR 190 - Basic EKG Interpretation

Credit(s): 2

Lecture Hour(s): 2

Provides instruction for interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Twelve-lead EKG may be discussed.

HPR 200 - Advanced ECG Interpretations

Credit(s): 3

Lecture Hour(s): 3

Focuses on each wave and interval of the complex, the axis, and the 12-lead presentation of some rhythm disturbances.

HPR 208 - Medical Record Terminology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): HPR 178.

Demonstrates knowledge of medical terminology with emphasis on combining complex prefixes, roots and suffixes. Course includes pathophysiology for major body systems. Course includes terms related to diagnostic tools per body systems, as well as commonly used medical abbreviations. Course applies medical terminology knowledge in interpreting the medical record.

HPR 232 - Disease Process and Treatment

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): BIO 106

Covers disease processes and drug therapy used to treat commonly found pathological conditions. Normal anatomy and physiology of each body system is reviewed. Conditions that disrupt homeostasis are examined. Conditions considered

are both acquired and congenital. Diagnostic methods, management, treatment modalities and prognosis are discussed. Classifications of drugs are introduced. A general understanding of the actions; absorption, metabolism and excretion; and reasons for use of various groups of pharmacologic agents are introduced.

HPR 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HPR 301 - Communications in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Develops professional written and oral communication plans to ensure effective patient-centered outcomes between health care professionals, patients and caregivers.

HPR 310 - Quality Improvement in Health Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Introduces approaches to assessing risk and improving health care quality through the practice of Continuous Quality Improvement (CQI). Course explores the conceptual framework for quality improvement, a focus on quality improvement as a strategy to manage cost, boost productivity, and enhance quality outcomes in various health care settings. The course will focus on both conceptual understanding and experiential learning.

HPR 403 - Critical Review of Healthcare Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Teaches how to evaluate and analyze published literature using a scientific approach to develop medical best practices, formulates and research clinical questions to effectively participate in medical discussions.

HPR 411 - Leadership and Management in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theories relative to leadership and management in health care settings. This course covers concepts in decision-making models, ethical reasoning skills, effective communication, interpersonal and inter-professional relationships, management of human and fiscal resources, risk management, and quality improvement.

HPR 468 - Pedagogy in Health Professions

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to BAS program

Provides a general overview of the concepts and theory relative to education in health professions. The course will introduce concepts in developing outcome centered objectives, syllabus, lesson planning, content delivery, test construction, and assessing student learning. The course explores various learning styles and technology available for delivery of course content.

Heavy Equipment

HEQ 150 - Basic Principles of Engine Operation and Drive Train

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the theory of operation and the maintenance of engines, drive trains and related power equipment used in heavy equipment operations.

HEQ 220 - Motor Grader I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the safe operation of a motor grader and perform a variety of operations using the grader.

HEQ 221 - Motor Grader II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the safe operation of a motor grader and aggregate road maintenance and building.

HEQ 225 - Backhoe I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Designed for operators with little or no experience in operating a backhoe. Covers performing pre-trip inspection, greasing and lubing equipment, nomenclature, and identifying and understanding all controls. Includes use of front-end loader to load dirt, using backhoe attachment to dig trenches of specific depth and length, replacing a cutting edge, and OSHA and industry standards of open excavations.

HEQ 226 - Backhoe II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers coordinating locates, preparing sub-base, digging on uneven surfaces, backfilling trenches, loading trucks with backhoe, digging trenches to grade, use of a transit and handheld level, crossing trenches, setting up on open excavations, benching techniques, and OSHA and industry safety standards.

HEQ 230 - Hydraulic Excavator

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Covers the safe operation of the hydraulic excavator. Allows the student to perform a variety of operations with the excavator.

HEQ 240 - Basic Bulldozer I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Teaches performing walk-around inspections, using proper terms and definitions associated with the bulldozer, and using proper safety procedures. Includes performing rough ditching and spreading, performing ripping operations, cutting and building a gentle slope bench, using the bulldozer on unstable soil, and replacing cutting edges on blades and teeth on rippers.

HEQ 241 - Bulldozer II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Teaches how to perform excavation in confined space, construct an elevated roadway, perform finish work, move large obstacles, perform bulldozing operations on a slope. Includes identifying and repairing drainage problems, stockpiling materials, use of a transit or hand level to create a 3:1 slope, and OSHA, MSHA and industry safety standards.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

HEQ 246 - Front End Loader II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Enables the student to learn the safe operation of a front-end loader and perform a variety of tasks. Build on skills such as excavating, stockpiling and backfilling with different types of attachments.

HEQ 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Heavy Equipment Mechanics

HEM 211 - Final Drives and Brakes

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Focuses on the study of single and double final drives and brake systems on both light and heavy-duty equipment. Covers diagnostics, service and repair techniques.

HEM 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

History

HIS 101 - Western Civilization: Antiquity-1650: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 102 - Western Civ: 1650-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of events, peoples, groups, ideas, institutions and trends that have shaped western civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 111 - The World: Antiquity-1500: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from the prehistoric era to 1500. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 112 - The World: 1500-present: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores a number of peoples, groups, ideas, institutions and trends that have shaped world history from 1500 to the present. Reflects the multiple perspectives of gender, class, religion and ethnic groups in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 121 - U.S. History to Reconstruction: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in North America and United States history, including the multiple perspectives of gender, class and ethnicity, between the period when Native American Indians were the sole inhabitants of North America and the American Civil War. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1

HIS 122 - U.S. History Since the Civil War: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Explores events, trends, peoples, groups, cultures, ideas and institutions in United States history, including the multiple perspectives of gender, class and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing and strengthening the skills historians use while constructing knowledge in the discipline. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HIS 225 - Colorado History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Presents the story of the people, society and cultures of Colorado from its earliest Native Americans through the Spanish influx, the explorers, the fur traders and mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists and the modern state. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 247 - 20th Century World History: GT-HI1

Credit(s): 3

Lecture Hour(s): 3

Investigates the major political, social and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states. This course is one of the statewide Guaranteed Transfer courses, GT-HI1.

HIS 255 - The Middle Ages

Credit(s): 3

Lecture Hour(s): 3

Focuses on political, social, cultural, economic and intellectual developments in Europe, Byzantium and the Islamic world from the collapse of Rome through the Renaissance, approximately A.D. 400-1400. This is a statewide Guaranteed Transfer course in the GT-HI1 category. GT-HI1

HIS 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Horticulture

HLT 100 - Horticulture Science

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Introduces students to the principles of the plant science as they relate to horticulture. The course emphasizes the application of plant sciences to the propagation, improvement, culture and utilization of horticultural plants.

HLT 101 - Introduction to Horticulture

Credit(s): 4

Lecture Hour(s): 4

Introduces the biology of horticultural plants and basic horticultural practices. (60 contact hours)

HLT 160 - Greenhouse Management

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Covers greenhouse design, systems, management and the major greenhouse crops and their cultural needs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

HLT 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HLT 208 - Pesticide Safety and Use

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Familiarizes students with the safe handling of pesticides used in horticulture and the laws and regulations that govern all facets of pesticide use in Colorado. Can be used as preparation for completing the Colorado Department of Agriculture's pesticide licensure exams.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

HLT 221 - Woody Landscape Plants I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Discusses the identification (common and botanical names), landscape usage and culture of regionally adapted plants. This course discusses deciduous shade and ornamental trees and conifers (evergreen trees and shrubs).

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

HLT 222 - Woody Landscape Plants II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Discusses the identification (common and botanical names), landscape usage and culture of regionally adapted plants. This course discusses deciduous and evergreen broadleaf shrubs and vines.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

HLT 223 - Annuals, Bulbs, and Grasses

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Discusses the identification (common and botanical names), landscape usage and culture of annuals, bulbs and perennial and annual grasses common to Colorado landscapes.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

HLT 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Hospitality Studies

HOS 105 - Introduction to Management in the Hospitality Industry

Credit(s): 3

Lecture Hour(s): 3

Describes the history, development and operation of the hospitality industry, including careers in the industry, management practices, accounting procedures, destinations and lodging.

HOS 110 - Introduction to Hospitality

Credit(s): 3

Lecture Hour(s): 3

Introduces learners to careers and the organization and structure of the hospitality industry, including hotels, restaurants, noncommercial food service, travel and tourism, conventions and meetings, clubs and other food service entities. Topics include exploring career opportunities, understanding the world of hotels and restaurants, food service organizational structures, an introduction to the meetings industry, and analyzing the size and scope of the noncommercial foods segment.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

HOS 122 - Travel Destinations in the Western Hemisphere

Credit(s): 3

Lecture Hour(s): 3

Introduces geography concepts such as time zones, weather patterns, map skills and geology to the students. This in-depth study of the western hemisphere, including North and South America and the Caribbean, will be considered from the perspective of the hospitality professional.

HOS 123 - Travel Destinations in the Eastern Hemisphere

Credit(s): 3

Lecture Hour(s): 3

Continues HOS 122, Travel Destinations in the Western Hemisphere, and will complete the examination of the world. The eastern hemisphere, including Europe, Asia, the Middle East, Africa, Australia and Oceania will be studied from the perspective of the hospitality professional.

HOS 131 - Planning for Special Events

Credit(s): 3

Lecture Hour(s): 3

Provides a basic knowledge of the planning and development of an event or meeting, including the budgeting, arranging of entertainment and catering, and the lodging of participants.

HOS 141 - Convention Management

Credit(s): 3

Lecture Hour(s): 3

Prepares students for a management position in the convention industry. The course defines the scope and segmentation of the convention and group business market, describes marketing and sales strategies to attract markets with specific needs, and explains techniques to meet those needs as part of meeting and convention service. The class meets for a total of 45 hours. At the conclusion of the course, students will take a nationally recognized test from the Educational Institute of the American Hotel and Lodging Association.

HOS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HOS 207 - Tour Management

Credit(s): 3

Lecture Hour(s): 3

Develops a basic understanding of the role and function of a tour conductor.

HOS 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Humanities

HUM 103 - Introduction to Film Art: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Studies the relationships among film's stylistic systems, narrative systems and audience reception. Students view, discuss and critically analyze a variety of films which represent a variety of genres and themes. The course incorporates the vocabulary of stylistic systems (for instance, cinematography and editing) and narrative systems (for instance, story structure and character motivation) as both relate to the kinds of meanings a film conveys. This course is approved as part of the Colorado Statewide Guaranteed transfer curriculum: GT:AH2.

HUM 115 - World Mythology: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces students to a multidisciplinary approach to world mythology. Common themes are illustrated and connected to religion, philosophy, art, literature, music and contemporary culture. In addition, students will study various ways of interpreting myth. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 121 - Humanities: Early Civilization: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the prehistoric to the early medieval era. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 122 - Humanities: Medieval - Modern: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among global cultures from the medieval to the early modern era. This is a statewide Guaranteed Transfer course in the GT-AH2 category. GT-AH2

HUM 123 - Humanities: Modern World: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

HUM 131 - The Arts and Cultures of Mexico

Credit(s): 3

Lecture Hour(s): 3

Introduces students, through visual arts, music and literature to attitudes toward the sacred and toward power (political, economic, social, religious) held by various cultures in Mexico from the Pre-Hispanic era to the mid-twentieth century.

HUM 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HUM 236 - North American Indian Arts

Credit(s): 3

Lecture Hour(s): 3

Focuses on North American Indian music, dance, architecture, painting, sculpture, pottery and fashions through a study of the literature of Indian cultures in North America.

HUM 237 - Hispanic Arts of the American Southwest

Credit(s): 3

Lecture Hour(s): 3

Examines the history, visual arts and permanency of the Hispanic culture of the American Southwest. Through the study of historical sequences, major artistic expressions dating from 1598 and aspects of literature of the contemporary Hispanic society students will gain an insight into the Hispanic cultural contributions to the Southwest.

HUM 238 - Sacred Images, Sacred Spaces: Southwestern US

Credit(s): 3

Lecture Hour(s): 3

Examines the historical, social, geographical and cultural forces that influenced the design and presentation of sacred images in several Southwestern U.S. cultures. Students will study stylistic features of images in various media in relation to the sacred spaces where they are displayed or employed in rituals.

HUM 266 - Documentary Film: from Traditional to Experimental

Credit(s): 3

Lecture Hour(s): 3

Explores documentary film as art form, cultural artifact, and rhetorical strategy.

HUM 275-276 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Industrial Maintenance Technology

IMA 120 - Pump, Seals, Rotating Equipment

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Explains the theory and operation of various types of pumps and compressors in common use in the process and energy supply industries. Mechanical power transmission systems, including direct coupling and v-belt drives, are studied. The principles involved in the operation of centrifugal and positive displacement pumps and compressors will be discussed, along with the function of various components in pumps and compressors, disassembly and reassembly of pumps, compressors and mechanical drives, and troubleshooting pumps and compressors.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

IMA 160 - Basic Fluid Power

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Provide an understanding of the fundamentals of fluid power, hydraulic transmission of force and energy, operation at the suction side of the pump, petroleum based hydraulic fluids, fire resistant hydraulic fluids, flow rates and velocity, properties of hydraulic fluids, and the function and construction of basic elements of a hydraulic or fluid power system. The course will cover hydraulic symbols and prints used in industry.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Jewelry Repair and Design

JRD 102 - Beginning Stone Setting I

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): Successful completion of ART 133 or Department Chair Approval.

Introduces basic stone-setting procedures and techniques. See "ART".

JRD 111 - Jewelry Shop I

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): Successful completion of ART 133 or Department Chair Approval.

Introduces the student to hand fabrication techniques used in a jewelry and metalsmithing shop. See "ART".

JRD 112 - Jewelry Shop II

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): Successful completion of ART 133 or Department Chair Approval.

Investigates advanced approaches in jewelry techniques, emphasizing the merging of hand-fabricated forms with casting in jewelry shop work. See "ART".

JRD 215 - Jewelry Design I

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): Successful completion of ART 133 or Department Chair Approval.

Introduces custom jewelry design procedures and techniques. See "ART".

JRD 216 - Jewelry Design II

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): Successful completion of ART 133 or Department Chair Approval.

Emphasizes advanced jewelry design techniques and practices as they relate to artistic and custom projects. See "ART".

JRD 218 - Jewelry Presentation and Photography

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Department Chair Approval.

Focuses on basic presentation techniques, display design and photography procedures for jewelry work. See "ART".

JRD 221 - Jewelry Portfolio

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Emphasizes the jewelry portfolio from the design concept and layout to the finished product. See "ART".

JRD 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest. See "ART".

JRD 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

Places the jewelry student in a repair shop for actual repair experience. See "ART".

Journalism

JOU 105 - Introduction to Mass Media: GT SS3

Credit(s): 3

Lecture Hour(s): 3

Places the mass media in a historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

JOU 106 - Media News and Reporting

Credit(s): 3

Lecture Hour(s): 3

Introduces newswriting, reporting and interviewing with an emphasis on clarity, accuracy, completeness, timeliness and fairness.

JOU 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

JOU 206 - Intermediate Newswriting and Editing

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): JOU 105, ENG 121, or Department Chair Approval

Presents how to gather information as an investigative reporter through research of local, state and federal government publications, how to cover police beat and city hall, how our courts and regulatory agencies function, and how to cover other challenges such as the environment, religion, science, medical, public safety and business.

JOU 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Law Enforcement Academy

LEA 101 - Basic Police Academy I

Credit(s): 6

Lecture Hour(s): 6

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.

LEA 102 - Basic Police Academy II

Credit(s): 12

Lecture Hour(s): 12

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge 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.

LEA 103 - Basic Law Enforcement Academy III

Credit(s): 2

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 2.25

Enhances the standards established by the POST board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a police officer. Emphasis will be on expanding the POST curriculum to create a unique learning experience.

LEA 105 - Basic Law

Credit(s): 8

Lecture Hour(s): 8

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.

LEA 106 - Arrest Control Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 107 - Law Enforcement Driving

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 108 - Firearms

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

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.

LEA 118 - Report Writing

Credit(s): 3

Lecture Hour(s): 3

Identifies the areas of concern in regards to proper documentation of police-related activities. Focuses on report writing skills, proper structuring of interviews and chronological documentation of events. Incorporates proper sentence structuring, the use of correct terminology and accuracy in written reports.

LEA 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Library Technician

LTN 101 - Introduction to Library Services

Credit(s): 3

Lecture Hour(s): 3

Introduces libraries and their procedures through research, vocabulary, readings and assignments. Identifies current tools such as wikis, blogs, podcasting, interactive web pages and other online services. Presents resources for library technicians.

LTN 110 - Selection and Acquisitions

Credit(s): 3

Lecture Hour(s): 3

Introduces the student to the tools, vendors, jobbers and approval plans that comprise the selection process. In addition, the student is introduced to acquisitions policy. The student engages in a course project whereby he/she applies a collection evaluation methodology to a section of a library collection and locates and recommends replacement titles.

LTN 115 - Library Circulation

Credit(s): 3

Lecture Hour(s): 3

Discusses customer service and circulation issues and procedures. Students will learn the role of customer service and the effects that automation has had on the circulation function of the library.

LTN 205 - Introduction to Cataloging & Classification

Credit(s): 3

Lecture Hour(s): 3

Introduces the library organization, how to use Dewey and Sears subject headings, elements of cataloging, practice in the use of Dewey and the Library of Congress classification systems, use of cutter tables, subject classification, accession numbers, and bar codes. Basic philosophy, procedures, tools and techniques for library routines are emphasized.

LTN 210 - Reference Materials

Credit(s): 3

Lecture Hour(s): 3

Teaches how to select reference materials, how to use at least 100 reference resources, the reference interview, and the role of resource sharing (interlibrary loan) in reference. Students will prepare a bibliography of the 100 titles they would want in their reference collection and 10 online sources they find useful.

LTN 220 - Library/Media Center Management & Public Relations

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of LTN 101.

Includes budget preparation, how to work with staff, the public, and administrators, and the use of statistics.

LTN 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Literature

DAN 150 - Dance Appreciation: AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces and allows discovery, experience, analyzation, and evaluation of different genres of dance, including but not limited to, music, choreography, costuming, history, and culture. This is a statewide Guaranteed Transfer course in the GT-AH1 category.

LIT 115 - Introduction to Literature I: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121.

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 126 - Study of Poetry

Credit(s): 3

Lecture Hour(s): 3

Focuses on careful reading and interpretation of various poems representing types and periods of poetry. It examines formal as well as thematic elements of poetry. Critical thinking, discussion and writing about poetry will enhance perceptive reading skills and heighten awareness of the human condition.

LIT 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

LIT 201 - World Literature to 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 202 - World Literature After 1600: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 205 - Ethnic Literature: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Focuses on significant texts by ethnic Americans, including African-American, Native American, Latino/a and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 211 - American Literature to Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the Native American through the 19th-century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 212 - American Literature After Civil War: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): ENG 121.

Provides an overview of American literature from the mid-19th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 225 - Introduction to Shakespeare: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at ENG 121 level or consent of instructor.

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the statewide Guaranteed Transfer courses. GT-AH2.

LIT 246 - Literature of Women: GT-AH2

Credit(s): 3

Lecture Hour(s): 3

Examines the techniques and themes in literature by and about women by examining women's issues from various genres. This course is one of the statewide Guaranteed Transfer courses, GT-AH2.

LIT 255 - Children's Literature

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Placement at the Composition I level

Examines the criteria for selecting appropriate literature for children. Explores literature through a variety of genres, age levels, values taught through literature, and literary and artistic qualities of various texts GT:AH2

LIT 257 - Literature and Film

Credit(s): 3

Lecture Hour(s): 3

Examines the relationship between literature and motion pictures, emphasizing the technique and interpretive function of filmmakers.

LIT 259 - Survey of African American Literature

Credit(s): 3

Lecture Hour(s): 3

Examines African American literature from 1750 to the present. This is a statewide Guaranteed Transfer course in the GT-AH2 category.

LIT 268 - Celtic Literature

Credit(s): 3

Lecture Hour(s): 3

Exposes the student to Celtic literature. The course examines significant writings in Celtic literature from the ancients through to the twenty-first century. The course emphasizes the careful reading and understanding of the works of poetry, fiction, and drama as well as their cultural backgrounds. This is a statewide Guaranteed Transfer course in the GT-AH2 category.

LIT 269 - Popular Literature and Culture

Credit(s): 3

Lecture Hour(s): 3

Explores special interests in literature, such as detective fiction and science fiction.

LIT 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Machining

MAC 100 - Machine Shop Safety

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of a machine shop including health and safety, locating essential safety information from a code or other standard, location and use of safety and emergency equipment, and identifying and applying shop safety procedures.

MAC 102 - Print Reading for Machinists

Credit(s): 3

Lecture Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation, tolerancing and dimensioning standards are also covered.

MAC 105 - Introduction to Machining Technology

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces the student to the changing era of machining technology, emphasizing terminology, referencing and applications related to manufacturing environments. The fundamental use of bench tools, layout procedures, materials, precision measuring tools, machining processes, drilling and cut-off machines and other machining/manufacturing processes will be stressed. Skill competencies and standards will be identified. Use of the Machinery's Handbook will be strictly required and particular competencies may require performance evaluations.

MAC 130 - Conventional Lathe Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Includes calculation of speeds and feeds on various materials, identification and application of various work holding techniques, tool forming, advanced machining practices and applications, and spindle tooling. Students will learn how to calculate and turn tapers using the compound slide or taper attachment, offset work on a four jaw chuck, turning between centers, boring, grooving, finishing, single point threading, knurling, tool grinding, drilling operations, and reaming.

MAC 131 - Milling Machines & Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Introduces vertical milling machines. The operations and applications will consist of using the machine controls, speeds and feeds, spindles, arbors and adapters cutting tools, tool holders, conventional and climb milling applications simple indexing, fixture alignments, work holding methods. Students will become familiar with set-up applications considering offset boring operations, face milling, plain milling, and precision drilling applications. Students will be required to produce parts to a tolerance of +/- .004in. and perform competencies set by manufacturing standards.

MAC 141 - Advanced Machining Operations

Credit(s): 4

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 3.75

Provides the student the use of various conventional machine tools used in a machine shop environment. The use of engine lathes, horizontal and vertical milling machines, surface grinders, drill presses, pedestal grinders, power cut-off saws and other machine tools commonly used to produce quality machined parts in today 's manufacturing environments. Machining competencies will be stressed and students will be required to produce parts manufactured by local manufacturing companies with the consideration of ISO quality standards.

MAC 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MAC 203 - Introduction to CNC Operations

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Introduces basic writing and editing of CNC programs. G&M codes, math, speeds feeds, production processes including basic process controls, simple fixturing, and documentation associated with manufacturing will be covered.

MAC 208 - CNC Operations II

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Further develops skills in writing and editing advanced CNC programs. G&M codes, math, speeds feeds, production processes including multi-part, process controls, fixturing, and documentation associated with manufacturing will be covered.

MAC 241 - CAD CAM 2D Lab

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Requires students to produce a variety of lab exercises on robotic machinery in conjunction with MAC 240 . Aspects of toolpaths for contour, drill and pocket will be covered. Chaining geometry, setting parameters, and managing cutter compensations will be addressed in both multi-tool programs and remachining operations. Coursework will primarily focus on 2D geometry projects.

MAC 243 - Mastercam

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces the concepts of creating basic 2D and 3D Mastercam wireframes, building and manipulating surfaces and solids. The practices and techniques of fixture incorporation, tool pathing, and machine code generation will be discussed. Basic user interfaces and custom interface setup will be covered, as well as common file storage.

MAC 250 - Advanced Inspection Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of quality control, TQM and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

MAC 256 - Industrial Components

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in

removal, installation and maintenance of plant equipment. It includes safety, fits, threads, bearings, fasteners, and hardware, lubrication, assembly and the use of hand tools.

MAC 265 - Mechanical Component II

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Covers common mechanical components used on industrial equipment. It is designed to assist maintenance staff in removal, installation and maintenance of plant equipment. It includes coupling, vibration, shafting, keys and keyways, belts and chain drives, gears and gear drive, and seals.

MAC 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Management

MAN 102 - Business Ethics and Values

Credit(s): 1

Lecture Hour(s): 1

Discusses behavior and identifies what is ethical and appropriate behavior and what is not. This course will identify the role of integrity, character, honesty, self-control, self-sacrifice and core values in developing ethical and effective behavior in the workplace.

MAN 103 - Managing Business Change

Credit(s): 1

Lecture Hour(s): 1

Explores how change in the workplace affects employees and customers. A description of how cultures promote behaviors will be presented. The changing roles of men and women and their impact on the workplace will be discussed and analyzed.

MAN 104 - Managing Workplace Stress

Credit(s): 1

Lecture Hour(s): 1

Defines stress in both positive and negative effects. A discussion on how it effects both employees and the workplace. Causes of stress are identified and methods for managing stress are researched and practiced.

MAN 105 - Logistics Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MTE 101,OR CIS 118.

Explores the logistic system from inbound movement of materials and freight into the organization, through physical distribution of the completed product to the consumer. Transportation systems, government regulations, material handling, inventory management and distribution centers are covered.

MAN 116 - Principles of Supervision

Credit(s): 3

Lecture Hour(s): 3

Studies 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 supervision. Course content focuses on the human interaction in supervision.

MAN 117 - Time Management

Credit(s): 1

Lecture Hour(s): 1

Provides students with the conceptual knowledge and tools to make better use of their time in the management function.

MAN 125 - Team Building

Credit(s): 1

Lecture Hour(s): 1

Introduces the concept of working as a team member. Activities and assignments will emphasize the ability to negotiate, work together, build consensus and make quality decisions.

MAN 126 - Total Quality Management

Credit(s): 3

Lecture Hour(s): 3

Covers the rationale for, method of implementing and key characteristics of TQM. Topics include developing a vision of a quality culture, strategic planning for implementation, customer focus, supplier relationships, benchmarking, continuous improvement, employee empowerment and teamwork. Through case studies students learn to apply TQM in manufacturing and service environments.

MAN 128 - Human Relations in Organizations

Credit(s): 3

Lecture Hour(s): 3

Introduces interpersonal relations most directly linked to attainment of organizational and individual goals in the business world. Other factors include motivation, career development, and conflict resolution. It explores the importance of effective communication in organizations. Addresses organizational issues such as employee motivation and customer complaints as related to product or service defects.

MAN 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MAN 200 - Human Resource Management I

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the contemporary issues, theories, and principles used to effectively manage human resources.

Topics covered include job analysis and design, talent acquisition and retention, planning and recruiting human resources, selecting employees, job placement, employee training and performance management, selecting employees, compensation and benefits, and retaining employees.

MAN 201 - Human Resource Management II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAN 200.

Offers a strategic discussion of concepts of human resources utilizing practical application and theory. Emphasizes human resource trends, equal opportunity and safety, workforce training and development, appraising and improving performance, labor relations, legal and global issues in human resources.

MAN 215 - Organizational Behavior

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAN 128.

Introduces the behaviors of groups and individual members of organizations and how to influence their behavior. Emphasis is on the tools managers use to achieve organizational effectiveness.

MAN 216 - Small Business Management

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 107

Examines the elements necessary for the successful formation of a new small business. It is also designed to enhance the skills of those already involved in the operation of a small business. The course includes the development of a complete small business plan.

MAN 224 - Leadership

Credit(s): 3

Lecture Hour(s): 3

Focuses on the leadership skills for contemporary organizations. Covers development and communication a shared vision to motivate and empower employees to manage conflict, to negotiate, and to develop teams.

MAN 225 - Managerial Finance

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts and techniques used to analyze financial accounting information for managerial planning, decision making and control. The focus of the course is on decision-making relating to the areas of budgets, forecasts, cost volume production, ROI and financial statements.

MAN 226 - Principles of Management

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the principles of management. Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches.

MAN 241 - Project Management in Organizations

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): MAT 107

Introduces students to the planning, implementation and control activities of project management, including project and performance evaluation, quality control and work flow analysis. Emphasis will be on the initiating, planning, executing, controlling and closing activities of project management.

MAN 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MAN 289 - Capstone: Management Information Systems

Credit(s): 3

Internship Hour(s): 9

Utilizes Seminar and simulation techniques in management information systems. Management concepts and principles are applied to both situational and comprehensive case problems.

Manufacturing Technology

MTE 101 - Introduction to Manufacturing

Credit(s): 3

Lecture Hour(s): 3

Focuses on the fundamentals of manufacturing and the responsibilities of the manufacturing technician, including design, procurement, assembly, maintenance, operations, accounting and the importance of Quality Assurance (QA) throughout the manufacturing process.

MTE 105 - Safety Manufacturing Environment

Credit(s): 1

Lecture Hour(s): 1

Introduces Occupational Safety and Health Administration (OSHA) federal and state regulations, industrial practices, and accident investigation techniques; including topics such as hazard communication standards, lockout/tagout procedures, eye safety, lifting techniques, electrical safety, stored energy safety, Personal Protective Equipment (PPE), and safety program development and monitoring.

MTE 106 - Print Reading Manufacturing

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Instructs students in reading and understanding industrial prints. This course covers basic drafting and print standards, fundamentals of shape description, fundamentals of size description and annotation, industrial drawing types, and specialized parts and prints. Symbol interpretation tolerancing and dimensioning standards are also covered.

MTE 110 - Applied Communication and Teamwork in Industry

Credit(s): 3

Lecture Hour(s): 3

Provides the student with an in-depth focus on the fundamental concepts and approaches required by industry to establish strong comprehensive and recognized skills in the areas of critical thinking, emotional intelligence, team dynamics, leadership roles, conflict resolution and results-oriented communication skills. This course is taught from a contextualized format.

MTE 120 - Manufacturing Processes

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of the different methods, tools, and machines which are used to manufacture industrial and consumer products.

MTE 175-177 - Special Topics

Credit(s): 0-12

Provides student with a vehicle to pursue in-depth exploration of a special topic of interest.

MTE 238 - Fluid Power Control

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces fluid power application in industry and various types of industrial control devices used in modern manufacturing equipment and machinery. Enables the student to produce the graphics required to incorporate these items into a mechanical design.

MTE 244 - Lean Manufacturing Prac/Proc

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the Toyota Production System (TPS).

MTE 247 - Strength of Materials

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): EGG 271.

Serves as an extension of Statics and includes the study of mechanical properties of materials and their limitations in engineering design by the study of stresses, strains, torsion forces, shear forces and deflections placed upon these materials.

MTE 275-276 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MTE 289 - Manufacturing Capstone

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Instructor's approval only.

Provides a demonstrated culmination of learning with a given program of study.

Marketing

MAR 158 - Basic Customer Service

Credit(s): 1

Lecture Hour(s): 1

Focus on basic concepts and techniques needed to effectively serve customers. Specific emphasis given to manage customer expectations by building customer rapport and create positive outcomes.

MAR 160 - Customer Service

Credit(s): 3

Lecture Hour(s): 3

Enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.

MAR 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MAR 216 - Principles of Marketing

Credit(s): 3

Lecture Hour(s): 3

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

MAR 220 - Principles of Advertising

Credit(s): 3

Lecture Hour(s): 3

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MAR 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Massage Therapy

HHP 130 - Reiki Level One

Credit(s): 1

Lecture Hour(s): 1

Explores the traditional Usui use of Reiki. Covers the history and development of Reiki work, beginning in Japan, to Hawaii, to the US, and later Europe on the fundamental beliefs and the dynamics of the Reiki process. Enables each student to receive Reiki attunements to prepare for the Reiki energy work. Each class member gives and receives a Reiki hands-on treatment session.

HHP 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

HHP 246 - Second Degree Reiki

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): HHP 130. Program chair approval.

Teaches the learning and meaning of the three traditional Usui symbols. Incorporates in-depth discussion about application of the three symbols. Students learn about the necessary preparation of a Reiki therapist in offering treatments. One attunement is given to each student. Each member gives and receives a Reiki treatment session, utilizing the three Reiki symbols. Long-distance and mental Reiki processes are learned. Reiki Therapist Certification available upon completion.

HHP 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Math

MAT 025 - Algebraic Literacy Lab

Credit(s): 1

Academic Lab Hour(s): 2

Corequisite(s): MAT 055.

Supports skill development for students registered in MAT 055 - Algebraic Literacy. Topics covered in this course include those defined in MAT 055 and/or any prerequisite skills needed by the student. For students with Accuplacer score EA 45-59, this course is a required corequisite with MAT 055 - Algebraic Literacy.

MAT 050 - Quantitative Literacy

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Refer to Basic Skills Assessment.

Develops number sense and critical thinking strategies, introduces algebraic thinking, and connects mathematics to

real-world applications. Topics in the course include ratios, proportions, percents, measurement, linear relationships, properties of exponents, polynomials, factoring and math learning strategies. This course prepares students for Math for Liberal Arts, Statistics, Integrated Math and college-level career math courses.

MAT 055 - Algebraic Literacy

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Refer to Basic Skills Assessment.

Develops algebraic skills necessary for manipulating expressions and solving equations. Topics in the course include radicals, complex numbers, polynomials, factoring, rational expressions, quadratic equations, absolute value equations and inequalities, systems of linear equations, related applications and math learning strategies. This course prepares students for College Algebra and Finite Math.

MAT 091 - Applied Quantitative Lab

Credit(s): 1

Academic Lab Hour(s): 2

Corequisite(s): MAT 103, MAT 107, MAT 108, or MAT 112.

Supports skill development for students registered in MAT 103, MAT 107, MAT 108, or MAT 112. Topics covered in the course include those defined in MAT 101/ MAT 103/ MAT 107/ MAT 108/ MAT 112 and/or any prerequisite skills needed by the student. Students with Accuplacer scores EA 30-59 or AR 40+, who are advised into MAT 103/ MAT 107/ MAT 108/ MAT 112, are required to co-enroll in this course.

MAT 092 - Quant Lab

Credit(s): 1

Academic Lab Hour(s): 2

Corequisite(s): MAT 120, MAT 135, MAT 155, or MAT 156.

Supports skill development for students registered in MAT 120, MAT 135, MAT 155, or MAT 156. Topics covered in this course include those defined in MAT 120/ MAT 135/ MAT 155/ MAT 156 and/or any prerequisite skills needed by the student. Students with Accuplacer scores EA 80-84, who are advised into MAT 120, MAT 135, MAT 155, or MAT 156, are required to co-enroll in this course.

MAT 093 - Algebra Lab

Credit(s): 1

Academic Lab Hour(s): 2

Corequisite(s): MAT 121.

Supports skill development for students registered in MAT 121 or MAT 123. Topics covered in this course include those defined in MAT 121/ MAT 123 and/or any prerequisite skills needed by the student. Students with Accuplacer scores EA 80-84, who are advised into MAT 121/ MAT 123, are required to co-enroll in this course.

MAT 101 - Enhanced Mathematics Support

Credit(s): 1

Academic Lab Hour(s): 2

Supplements math classroom instruction through the Mathematics Support Center, a student-centered learning environment. Students will be able to utilize the following resources: professional and peer tutoring, mathematics and tutorial software, online tutorial resources, videotapes, and training guides for these resources. Students will also be able to obtain help with calculators and mathematical software required in their math courses.

MAT 103 - Math for Clinical Calculations

Credit(s): 3

Lecture Hour(s): 3

Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

MAT 107 - Career Math

Credit(s): 3

Lecture Hour(s): 3

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.

MAT 108 - Technical Mathematics

Credit(s): 4

Lecture Hour(s): 4

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 at an introductory level and the emphasis is on applications.

MAT 112 - Financial Mathematics

Credit(s): 3

Lecture Hour(s): 3

Covers topics including pricing, taxes, insurance, interest, annuities, amortization, investments using financial calculators and spreadsheets.

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 101 concurrency allowed, or see Basic Skills Assessment

Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 121 - College Algebra: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055.

Explores topics including intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 122 - College Trigonometry: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 121.

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional prerequisite course to the calculus sequence. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 123 - Finite Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 055 or Equivalent Test Score.

Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 125 - Survey of Calculus: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 121 or see Basic Skills Assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors.. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 135 - Introduction to Statistics: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Explores and applies data presentation and summarization, introduction to probability concepts and distributions, statistical inference – estimation, hypothesis testing, comparison of populations, correlation and regression. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 155 - Integrated Math I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 050.

Engages students in the concepts of school mathematics, including the recognition of numerical and geometric patterns and their application to a variety of mathematical situations; mathematical problem-solving, reasoning, critical thinking, and communication; algebraic thinking, representation, analysis, manipulation, generalizations and extensions. (This course is only offered in the fall semester.)

MAT 156 - Integrated Math II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 155.

Furthers MAT 155 concepts and will include fundamentals of probability, statistics and Euclidean geometry. Mathematical problem-solving, reasoning, critical thinking and communication will continue to be an integral part of this sequence. (This course is only offered in the spring semester.)

MAT 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MAT 201 - Calculus I: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 122.

Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives and applications of derivatives as well as indefinite and definite integrals and some applications. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 202 - Calculus II: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): MAT 201.

Continues the study of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 203 - Calculus III: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): MAT 202.

Focuses the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 204 - Calculus III with Engineering Applications: GT-MA1

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

Focuses on the competencies established in MAT 203 - Calculus III: GT-MA1 with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 215 - Discrete Mathematics: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 201 with a C or better.
Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 255 - Linear Algebra

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 201 with a grade of C or better.

Explores vector spaces, matrices, linear transformations, matrix representation, eigenvalues and eigenvectors.

MAT 261 - Differential Equations with Engineering Applications: GT-MA1

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of MAT 202 with a grade of C or better.

This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. This course is one of the statewide Guaranteed Transfer courses, GT-MA1.

MAT 265 - Differential Equations: GT-MA1

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MAT 202 with a C or better.

Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.

MAT 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Medical Assistant Professional

MAP 110 - Medical Office Administration

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the administrative duties specifically used in medical offices.

MAP 120 - Medical Office Financial Management

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Department Chair Approval.

Covers the practical uses of accounts and records with emphasis on accounting principles and analysis for use in a medical office. This course introduces outpatient coding with an ultimate goal to present a clear picture of medical procedures and services performed, such as Current Procedural Terminology (CPT) codes, correlating the diagnosis,

symptom, complaint or condition, and International Classifications of Diseases (ICD) codes, thus establishing the medical necessity required for third-party reimbursement.

MAP 138 - Medical Assisting Laboratory

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Introduces the student to basic routine laboratory skills and techniques for collection, handling and examination of laboratory specimens often encountered in the ambulatory care setting.

MAP 140 - Medical Assisting Clinical Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Department Chair Approval.

Provides hands-on experience with clinical skills required in medical offices. Delivers theory and skills presentations allowing for students to properly demonstrate techniques for a variety of medical needs.

MAP 150 - Pharmacology for Medical Assistants

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Chair Approval.

Provides an overview of pharmacology language, abbreviations, systems of measurement and conversions. The Controlled Substances Act, prescriptions, forms of medications, patient care applications, drug classifications/interactions, and safety in drug therapy and patient care are presented. Information regarding the measurement of medications, dosage calculations, routes of administration and commonly prescribed drugs in the medical office is provided.

MAP 183 - Medical Assistant Internship

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Department Chair Approval.

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. The student assists with a variety of business and clinical procedures. Positions are nonpaid. Student must have permission by program coordinator to begin Internship.

MAP 189 - Review for Medical Assistant National Exam

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Department Chair Approval.

Prepares the candidate sitting for the National Registration/Certification examination for Medical Assistant through review and practice. These examinations are given with the intent of evaluating the competency of entry-level practitioners in Medical Assisting, supporting quality care in the office or clinic.

Medical Office Technology

MOT 125 - Basic Medical Sciences I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required.

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the immune, musculoskeletal, and digestive systems. A discussion of pediatric implications as they relate to clinical physiology will also be covered. The scope of the material is limited to the medical office technology personnel.

MOT 133 - Basic Medical Sciences II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the cardiovascular, respiratory, integumentary, and senses systems. The scope of the material is limited for the medical office technology personnel.

MOT 135 - Basic Medical Sciences III

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Introduces the anatomy, physiology, pathophysiology, and drug therapy of the renal, reproductive, neurological, and endocrine systems. The scope of material is limited for the medical office technology personnel.

Meteorology

MET 150 - General Meteorology: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

Multimedia and Graphic Design

MGD 101 - Introduction to Computer Graphics

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces the student to the computer system and software used to develop graphics. The student will learn the hardware and software components for publication and multimedia production through execution in various vector, raster, page layout and multimedia programs. Students will be introduced to career opportunities within graphics fields.

MGD 102 - Introduction to Multimedia

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces the basic components of multimedia: text, graphics, animation, sound and video. Students gain an introductory knowledge of various multimedia and design software programs. Students gain hands-on, technical, conceptual and aesthetic experience pertaining to the creation of multi-dimensional design and time-based media via an array of projects and demonstrations. Students will be introduced to career opportunities within multimedia fields.

MGD 105 - Typography & Layout

Credit(s): 3

Vocational Lab Hour(s): 4.50

Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving and research. Provides experience producing thumbnails, roughs and digital layouts emphasizing refined creative typography.

MGD 106 - Creativity and Visual Thinking

Credit(s): 3

Art Studio Hour(s): 6

Introduces the visual and oral skills necessary to analyze works art and design, articulate complex ideas, then present the solution cogently in 2D and 3D projects and presentation skill building. The underlying philosophy of what we see, how we see and what we do with it is the major concern of this class.

MGD 107 - History of Design

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Department Chair Approval.

Explores the pivotal events and achievements that have led to the current state of graphic communication. Through lectures, slides, videos, class discussions and research, students discover the creative thinkers, innovations and breakthrough technologies that have shaped the evolution of visual communication, advertising and industrial design today.

MGD 111 - Adobe Photoshop I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Course competencies and outline follow those set out by the Adobe Certified Associate exam in Visual Communication using Adobe Photoshop.

MGD 112 - Adobe Illustrator I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Concentrates on the high-end capabilities of Adobe Illustrator as an illustration, design and vector drawing tool. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design. Course competencies and outline follow those set by the Adobe Certified Associate exam in Visual Communication using Adobe Illustrator.

MGD 113 - Quark Xpress

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces students to QuarkXPress, a digital page layout tool. Students learn how to assemble, organize, manipulate and manage text and graphics to produce a high-quality publication. Class discussions and independent projects supplement hands-on classroom work.

MGD 114 - Adobe Indesign

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces students 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.

MGD 117 - Introduction to Visual Communications

Credit(s): 3

Lecture Hour(s): 3

Surveys visual communications, its history and impact on society. A foundation course for graphic design and illustration majors and a survey for non-majors who are interested in the field. Assignments require minimal artistic talent.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

MGD 133 - Graphic Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 105 and MGD 111 or MGD 114, or Department Chair Approval.

Focuses upon the study of design layout and conceptual elements concerning graphic design projects such as posters, advertisements, logos and brochures.

MGD 141 - Web Design I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Introduces website planning, design and creation using industry standards-based website development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored.

MGD 143 - Motion Graphic Design I: (Software)

Credit(s): 3

Vocational Lab Hour(s): 4.5

Stresses creation of animation and dynamic interactive media for web and multimedia applications to a professional standard. Students will learn how to develop projects for time-based media, key-frames, tweens and symbols. Students will learn how to use actions to trigger timeline events to create interactive behaviors.

MGD 145 - Quicktime Technologies

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces students to current QuickTime technologies for Web applications. Students will prepare panoramic and object QTVR content, streaming audio and video in QuickTime format. Students will publish digitized video and audio in HTML Web pages on a local server.

MGD 163 - Sound Design I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Explores the use of sound in multimedia production and audio storytelling. Students examine the principles of recording. Classes focus on how sound can enhance interactive productions and improve computer presentations. Students learn how to use the computer as a full audio editing studio.

MGD 164 - Digital Video Editing I

Credit(s): 3

Vocational Lab Hour(s): 4.5

Introduces to digital nonlinear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control, transitions and filters, and special effects are explored.

MGD 167 - Game Design I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): Department Chair Approval.

Introduces students to game design from conceptual development and functionality, through production of a virtual world prototype. Students examine such things as character registration, in-betweens, inking and clean up used for creating real-time game environments. Storytelling and visual metaphor development are emphasized.

MGD 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MGD 202 - Point of Purchase Packaging Design

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 133 concurrently, or MGD 105, MGD 112.

Introduces the theories and principles that apply to three-dimensional design graphics for packaging and display; various dimensional marketing solutions to create dynamic visual effects concepts will be developed. Work layout stages and mock-ups will utilize various methods of cutting, folding and assembly to explore the design concepts and their visual effects.

MGD 207 - Illustration I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): Department Chair Approval.

Addresses methods and techniques used in the profession of illustration for advertising, brochures, books and other forms of printed communications. Course concentrates on developing expertise in producing line and continuous-tone black-and-white art with emphasis on design and the creation of art for reproduction.

MGD 211 - Adobe Photoshop II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): Instructor approval.

Develops and reinforces image composition techniques learned in MGD 111 - Adobe Photoshop I. Fundamentals are continuously reinforced as new design techniques are introduced.

MGD 221 - Computer Graphics I

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): CIS 110, equivalent assessment test score, or Department Chair Approval.

Introduces the process of generating computer design.

MGD 222 - Computer Graphics II

Credit(s): 3

Art Studio Hour(s): 6

Prerequisite(s): MGD 221 or instructor's approval.

Continues MGD 221 with advanced problems in generating computer design for graphics application, emphasizing production of individual fine art pieces.

MGD 227 - Marcomm Practices

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): JOU 105, or Department Chair Approval

Explores techniques and approaches in the practice of marketing communications (marcomm), including advertising, branding, direct marketing, packaging, promotion, publicity, sponsorship, public relations, sales, online marketing, social media marketing and more. Focuses on understanding the relationships between the different components of marketing communications to achieve maximum message effect.

MGD 233 - Graphic Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 133.

Continues instruction in idea development for advanced graphic design.

MGD 241 - Web Design II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 141, or department chair approval.

Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, Java Scripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we'll examine websites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

MGD 242 - Web Architecture: Open Source Design

Credit(s): 3

Vocational Lab Hour(s): 4.50

Provides an overview of current open source tools used in the design industry for designing and implementing Web architecture. Course content changes with trends in the industry. Topics may include current content management platforms such as WordPress and Drupal, how to identifying web scripting languages, and an overview of open source programming such as PHP and MySQL.

MGD 243 - Web Motion Graphic Design II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): MGD 143.

Stresses the complex creation of 2D animated motion graphics concentrating on the prior skills learned and the use of scripting and behaviors. Students will create motion graphics using these skills and apply them to websites. Website justification of motion graphics will be stressed, appraised and weighed.

MGD 256 - Graphic Design Production

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): MGD 133

Provides an opportunity to combine several draw and paint applications into one design and layout class. Students will explore advanced techniques in creating and designing computer art.

MGD 264 - Digital Video Editing II

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): MGD 164

Looks at the more complex and advanced techniques of digital video editing. Areas of editing such as masking, filtering, blue/green screening, track mattes and image mattes will be examined. Students will produce a movie project in this class and discuss practical ways to distribute to various audiences.

MGD 267 - Game Design II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): MGD 167.

Explores more advanced features of game design. Students examine such things as integration of mainline code, subroutines and interrupts into game structure. I/O structure, playtesting and distribution are emphasized.

MGD 268 - Business for Creatives

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121 or ENG 131

Presents a guide to freelance work and a study of business practices and procedures and models unique to creative occupations (graphic design, web design, animation, fine arts). Discussion includes determining charges, business forms, business planning, tax structure, licenses and registration, self-promotion (resume, website, portfolio, business identity package). Course may include visits by professionals in the field and discussion of career opportunities in a quickly changing career field.

MGD 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

MGD 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

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 business location and with the direct guidance of the instructor.

MGD 289 - Capstone

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Department Chair Approval.

A demonstrated culmination of learning within a given program of study.

Music

MUS 100 - Music Theory Fundamentals I

Credit(s): 3

Lecture Hour(s): 3

Introduces the basics of music theory. Course designed to help the beginning music student, or those students with limited background in music theory, study the basic elements of music. Topics include notation, rhythm, scales, key signatures, intervals, chords, beginning level melodic and rhythm dictation, ear-training and sight-singing skills.

MUS 101 - Music Theory Fundamentals II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of MUS 100, or Department Chair Approval.

Continues the introduction of basics of music theory and builds upon skills developed in MUS 100. Course designed to help the beginning music student, or those students with limited background in music theory, study the basic elements of music, including notation, rhythm, scales, key signatures, intervals and chords. Course continues to develop beginning level melodic and rhythm dictation, ear-training and sight singing skills.

MUS 112 - Ear Training/Sight-singing I Lab

Credit(s): 1

Music Studio Hour(s): 2.5

Provides exercises in sight singing, rhythmic reading, and melodic and rhythmic dictation. The course will include performance of melodies and rhythmic reading exercises. Ear training dictation topics includes rhythm, intervals, diatonic scales, melody, triad types, and scales.

MUS 120 - Music Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Introduces the study of music focusing on intelligent listening skills, the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various Western, and non-Western historical style periods. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 121 - Music History Medieval Thru Classical Period: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music from the Middle Ages into the Classical period, including styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 122 - Music History Early Romantic Period to the Present: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an historical survey of Western art music connecting the classical period to the Romantic period and following to the present. This course includes the study of styles, genres, composers, works, and significant cultural and historical influences upon the repertoire. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 125 - History of Jazz: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Provides an overview of jazz history covering the basic materials of music and the forms, media, genres, and the historical and cultural framework of each style period. This course emphasizes the building of critical listening tools and the development of a jazz music vocabulary. This is a statewide Guaranteed Transfer course in the GT-AH1 category. GT-AH1

MUS 131 - Music Class I

Credit(s): 2

Music Studio Hour(s): 5

Provides group instruction in music, introducing basic techniques, repertoire, and sight-reading.

MUS 132 - Music Class II

Credit(s): 2

Music Studio Hour(s): 5

Provides group instruction in music, continuing to develop basic techniques, repertoire, and sight-reading.

MUS 141 - Private Instruction (Specify)

Credit(s): Variable 1-2

Private Instruction Hour(s): .5-1

Prerequisite(s): Instructor or Department Chair Approval

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. First year, first term.

MUS 142 - Private Instruction (Specify)

Credit(s): Variable 1-2

Private Instruction Hour(s): .5-1

Prerequisite(s): Instructor or Department Chair Approval

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. First year, second term.

MUS 143 - Private Instruction (Specify)

Credit(s): Variable 1-2

Private Instruction Hour(s): .5-1

Prerequisite(s): Instructor or Department Chair Approval

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. First year, third term.

MUS 144 - Private Instruction (Specify)

Credit(s): Variable 1-2

Private Instruction Hour(s): .5-1

Prerequisite(s): Instructor or Department Chair Approval

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. First year, fourth term. May be repeated for credit more than once per individual institution policy.

MUS 151 - Ensemble I

Credit(s): 1

Music Studio Hour(s): 2.50

First year, first term. Rehearses and performs various types of musical literature.

MUS 152 - Ensemble II

Credit(s): Variable 1-2

Private Instruction Hour(s): .5-1

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. Second year, first term.

MUS 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in depth exploration of Special Topics of interest.

MUS 241 - Private Instruction (Specify)

Credit(s): 1-2

Music Studio Hour(s): 2.50-5

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. Second year, first term.

MUS 275 - Special Topics

Credit(s): 0-12

Covers specific topics in music. This course is offered as needed for credit appropriate to the topic and each offering includes a description of the topic(s).

MUS 276 -277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in depth exploration of Special Topics of interest.

Nursing

NUR 101 - Pharmacology Calculations

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Prepares nurse to provide safe, patient-centered nursing care related to dosage calculations within the respective scope of practice. This course introduces critical thinking applied to dosage calculations and communication used when interacting with patients and members of the healthcare team related to various aspects of safe administration of medications. Information technology used to document medications administered and patient technology used to deliver medications are also practiced.

NUR 102 - Alterations in Adult Health I

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Admission to Practical Nurse Program.

Provides acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to diverse adult patients experiencing common health alterations requiring medical/surgical interventions. The course introduces Practical Nursing and incorporates the legal and ethical responsibilities of the Practical Nurse.

NUR 103 - Basic Assessment for the Pn

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Provides the theoretical knowledge and psychomotor skills used by the Practical Nurse performing a basic assessment of health status of stable adult patients with predictable outcomes, including collecting, reporting, and recording objective/subjective data, observing conditions or changes in condition, and differentiating normal from abnormal findings. Principles of therapeutic communication and patient teaching are included. Includes practice collecting basic assessment data in the nursing skills laboratory.

NUR 104 - Alterations in Adult Health II

Credit(s): 5

Lecture Hour(s): 4.50

Vocational Lab Hour(s): 1.50

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Apply and expand the knowledge and skills learned in Adult Health I to provide acquisition of basic nursing theory, communication, collaboration and critical thinking necessary for safe, patient-centered nursing care for diverse adult patients with conditions that are stable and predictable. The course focuses on care of patients experiencing common health alterations requiring medical/ surgical interventions. The course incorporates legal and ethical responsibilities of the Practical Nurse in the care of adults.

NUR 105 - Practical Nursing Arts and Skills

Credit(s): 6

Lecture Hour(s): 3

Vocational Lab Hour(s): 9

Prerequisite(s): Admission to Practical Nurse Program.

Employs basic nursing theory and applies that theory and theory from other co-requisite nursing courses to the performance of nursing skills. Communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care are applied to the care of patients across the lifespan with stable and predictable outcomes. The course applies guidelines related to the professional, legal, and ethical scope of practice of the Practical Nurse, including demonstrating safe performance of all psychomotor skills.

NUR 106 - Med-Surg Nursing Concepts

Credit(s): 7

Lecture Hour(s): 3.40

Vocational Lab Hour(s): 0.90

Voc/Tech Clinic Hour(s): 9.90

Prerequisite(s): Admission to Nursing Program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 150 or permission of the program director.

NUR106 is the first medical/surgical nursing course. Building on NUR 109, this course provides for the acquisition of basic medical/surgical nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered care to a developmentally and culturally diverse adult patient population experiencing various medical/surgical interventions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings.

NUR 109 - Fundamentals of Nursing

Credit(s): 6

Lecture Hour(s): 2

Vocational Lab Hour(s): 6

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 112, HPR 108, MAT 103. Psych Tech: NUR 112.

Introduces the fundamental concepts necessary for safe, patient-centered nursing care to a diverse patient population while integrating legal and ethical responsibilities of the nurse. Introduces caring, critical thinking, the nursing process, quality improvement and communication used when interacting with patients and members of the interdisciplinary team, and relates evidence-based nursing practice. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of clinical settings providing care to stable patients with common health alterations.

NUR 110 - Pharmacology Practical Nursing

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to Practical Nurse Program.

Categorizes basic principles of pharmacology, including major drug classifications using prototype drugs, principles of medication administration including best practices for safe, quality, and patient-centered care. Discusses the legal and ethical responsibilities of the Practical Nurse related to medication administration. Application of this content is used throughout the program nursing courses.

NUR 111 - Advancement into Practical Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Demonstrates the roles and responsibilities of the Practical Nurse including scope of practice, supervision, assignment, and leadership skills. Emphasis on accountability, lifelong learning, perspectives in healthcare, and career and job readiness skills for entry level nursing practice.

NUR 112 - Basic Concepts of Pharmacology

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing or Psychiatric Technician programs.

Corequisite(s): Nursing: NUR 109, HPR 108, MAT 103; Psych Tech: NUR 109.

Overview of the basic principles of pharmacology including major drug classifications and prototypes of commonly

used medications. Principles of medication administration include aspects of best practice for safe, quality, patient-centered care. Central points include safety, quality improvement factors in the administration of medications, patient teaching and variations encountered when administering medications to diverse patient populations across the lifespan.

NUR 113 - Basic Concepts of Maternal-Newborn Nursing

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies and expands the knowledge and skills learned in the previous and concurrent courses to provide the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to childbearing families. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of childbearing families.

NUR 114 - Basic Concepts of Pediatric Nursing

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies and expands on the knowledge and skills learned in the previous and concurrent courses to provide for the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to children and their families. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of children.

NUR 115 - Basic Concepts of Mental Health Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Applies knowledge of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to diverse patients at various levels of mental health promotion and mental illness management. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of patients with mental health issues.

NUR 116 - Basic Concepts of Geriatric Nursing

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to Practical Nurse Program.

Applies and expands the knowledge and skills learned in the previous and concurrent courses to provide for the acquisition of basic nursing theory, communication, collaboration, and critical thinking necessary for safe, patient-centered nursing care to older adults. The course incorporates the legal and ethical responsibilities of the Practical Nurse in the care of older adults.

NUR 150 - Maternal-Child Nursing

Credit(s): 6

Lecture Hour(s): 3.30

Vocational Lab Hour(s): 2.10

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 106 or permission of the program director.

Nursing 150 provides for the acquisition of maternal/child nursing theory, as well as application of mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, family-centered nursing care to childbearing families and children that is developmentally and culturally appropriate.

Incorporates evidence-based practice, standards of practice, quality improvement, and legal and ethical responsibilities of the nurse. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of maternal/child and pediatric clinical settings.

NUR 169 - Transition into Practical Nursing

Credit(s): 4

Lecture Hour(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing program and completion of preceding required program course work or program director permission.

Facilitates the transition into the role of the practical nurse with emphasis on distinguishing the defined practical nurse scope of practice related to clinical practice, communication, nursing process, ethical/legal issues and leadership skills. The student practices in the role of the practical nurse in the associated clinical experience.

NUR 170 - Clinical I

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Practical Nursing Program.

Offers the clinical practicum to apply the related nursing theory.

NUR 171 - Clinical II

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): Admission to Nursing Program.

Offers the clinical practicum to apply the related nursing theory.

NUR 172 - Clinical III

Credit(s): 3

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.

Offers the clinical practicum to apply the related nursing theory.

NUR 173 - Clinical III

Credit(s): 2

Voc/Tech Clinic Hour(s): 6

Prerequisite(s): NUR 101, NUR 102, NUR 103, NUR 105, NUR 116, NUR 170, NUR 171.
Offers the clinical practicum to apply the related nursing theory.

NUR 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

NUR 189 - Transition from LPN to ADN

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 1.50

Prerequisite(s): Admission to Nursing program.

Facilitates transition of the LPN to new roles and responsibilities of the ADN, the nursing process, critical thinking, legal and ethical issues in nursing practice, and the nursing care of childbearing families and pediatric clients. Application of knowledge and skills occurs in the laboratory and maternal/child and pediatric clinical settings.

NUR 206 - Advanced Concepts of Medical-Surgical Nursing I

Credit(s): 6.50

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Voc/Tech Clinic Hour(s): 9

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of the program director.

NUR 206 builds on NUR 106 focusing on advanced concepts of nursing applied to care of patients with high acuity medical/surgical conditions. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in a variety of healthcare settings. Application of knowledge and skills occurs in the nursing skills laboratory and in a variety of clinical settings.

NUR 211 - Psychiatric-Mental Health Nursing

Credit(s): 4

Lecture Hour(s): 2.70

Voc/Tech Clinic Hour(s): 3.90

Prerequisite(s): Admission to Nursing program and successful completion of preceding Nursing program course work or permission of the program director.

Corequisite(s): NUR 212 or permission of program director.

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 psychiatric clinical conditions/disorders.

NUR 212 - Pharmacology II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to Nursing program and successful completion of preceding required program course work or permission of the program director.

Corequisite(s): NUR 211 or permission of the program director.

Builds on previously introduced pharmacological concepts and applies that learning to pharmacologic therapy to provide safe, quality, evidence-based nursing care to patients with complex healthcare needs. Focuses on safety and quality improvement factors in the administration of medications within a variety of healthcare systems. Advanced dosage calculations included.

NUR 216 - Advanced Concepts of Medical Surgical Nursing II

Credit(s): 5

Lecture Hour(s): 2.30

Voc/Tech Clinic Hour(s): 8.10

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 206 and NUR 212 or permission of the program director.

Nursing 216 is a continuation of Nursing 206, focusing on complex medical/surgical conditions of the high acuity patient. Builds on medical/surgical nursing theory, mental health concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult patients experiencing high acuity medical/surgical conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of knowledge and skills occurs in a variety of clinical settings.

NUR 230 - Transition to Professional Nursing Practice

Credit(s): 4

Lecture Hour(s): 1.60

Voc/Tech Clinic Hour(s): 7.20

Prerequisite(s): Admission to Nursing program and successful completion of preceding program course work or permission of the program director.

Corequisite(s): NUR 216 or permission of the program director.

Nursing 230 is a Seminar and practice Capstone course that provides an integrative experience applying all dimensions of the professional nurse in the care of diverse patient populations across a variety of healthcare settings. All major concepts of the nursing program are addressed. Leadership and the management of multiple patients are emphasized. Application of knowledge and skills occurs in the clinical setting to facilitate an effective transition from student to registered professional nurse.

NUR 254 - RN Licensing Exam Preparation

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): Completion of three semesters of nursing coursework or instructor permission.

Will provide a review of the RN NCLEX test plan content areas, review of NCLEX style question formats and the Computerized Adaptive Testing method. Students will review study options for preparing for the RN NCLEX exam and have the opportunity to develop a customized preparation plan for success on the RN NCLEX for Professional Nursing Licensure.

NUR 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

NUR 301 - Integration into Baccalaureate Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Explores professional nursing practice at the baccalaureate level. Focus is on knowledge and understanding of the professional nursing standards and the nursing role at a baccalaureate level.

NUR 302 - Trends in Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Examines current issues that nurses encounter in the health care environment including their roles and responsibilities within the nursing profession.

NUR 303 - Nursing Research / Evidence Based Practice

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 135

Analyzes concepts associated with nursing research, collection, and analysis of data with emphasis on integration of evidenced-based practice within nursing. The course develops the skills for critiquing published research.

NUR 304 - Informatics / Healthcare Technology

Credit(s): 3

Lecture Hour(s): 3

Explores concepts and applications related to the nurse's role in utilizing healthcare informatics involving patient care technology. This course will explore the impact of information management systems on the delivery of patient care, healthcare teams, and health outcomes.

NUR 305 - Emergency Preparedness

Credit(s): 3

Lecture Hour(s): 3

Focuses on the nurse's roles and responsibilities in the most common types of disasters and how the nurse can deliver effective care in various emergency situations.

NUR 306 - Gerontology Nursing

Credit(s): 3

Lecture Hour(s): 3

Focuses on optimizing health for the aging client within the framework of the nursing process. Emphasis is on supporting the unique needs of the aging population.

NUR 307 - Behavioral Health

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval

Provides an overview of behavioral health promotion for individuals, families, and populations with behavioral health concerns. The focus of the course will explore the nurse's impact on behavioral health trends.

NUR 408 - Legal and Ethical Issues Related to Professional Nursing Practice

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval.

Emphasizes the ethical and legal obligations of professional nursing practice. The focus is on values clarification, ethical theory, and ethical decision making models. Additionally, legal issues related to healthcare will be explored.

NUR 409 - Leadership in the Nursing Profession

Credit(s): 3.5

Lecture Hour(s): 3.5

Prerequisite(s): Program approval

Focuses on the role of the professional nurse as a leader within healthcare. The course integrates concepts needed to assume leadership and management positions in the healthcare environment.

NUR 410 - Community Health Nursing/Practicum

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): Program approval

Focuses on the role of the professional nurse in community-based practice settings, with an emphasis placed on health promotion, prevention, and optimal wellness of the community.

NUR 411 - Senior Seminar

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program approval.

Integrates theory into practice by building on previous concepts and knowledge.

Nursing Assistant

NUA 101 - Nurse Aide Health Care Skills

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

NUA 102 - Certification Exam Prep

Credit(s): 0.50

Lecture Hour(s): 0.50

Prerequisite(s): NUA 101, NUA 170, NUA 171.

Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

NUA 170 - Nurse Aid Clinical Experience

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Applies knowledge and skill gained in NUA 101 to patient care.

NUA 171 - Advanced Nurse Aide Clinical

Credit(s): 1

Voc/Tech Clinic Hour(s): 1.50

Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end-of-life care, critical thinking and organizational skills.

NUA 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Occupational Safety Technician

OSH 127 - 10-hr Construction Industry Standards

Credit(s): 1

Lecture Hour(s): 1

Provides a 10-Hour OSHA certification course for the construction industry and participants will review the current OSHA standards contained in 29 CFR 1926. 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.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

OSH 146 - Hazardous Materials

Credit(s): 2

Lecture Hour(s): 2

Provides information to students on chemical Right-to-Know awareness. Course topics include introduction to right-to-know awareness, chemical identification, chemical labeling and material safety data sheets.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Occupational Therapy Assistant

OTA 100 - Introduction to Occupational Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission

Explores career options in occupational therapy through discussion, observation and participation. Identifies the need for areas of occupation and the differences between health, illness and wellness. Describes the history and philosophy of occupational therapy and the roles, responsibilities and relationships between other healthcare professionals. Discusses ethical and legal implications of health care and explores basic sociological issues.

OTA 105 - Occupational Disruption and Activity Analysis

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): Admission into the OTA program.

Explores the diseases and aspects of health and wellness common to occupational therapy intervention and occupational disruption and gains insight to various treatment methods and techniques as well as applying activity/task analysis.

OTA 106 - Basic Occupational Therapy Frames of Reference and Documentation

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Develops the ability to identify the types of occupational therapy documentation and practice basic documentation skills. Identifies models of practice, frames of reference and occupational therapy theories, founders, underlying assumptions of the theories, and implications to occupational therapy practice and treatment interventions.

OTA 121 - Assessing Movement Through Occupation

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 105, BIO 106 or BIO 201

Provides communication strategies with clients and caregivers in an inter-professional setting. Students will demonstrate an understanding of how performance skills affect occupation and how assessments such as muscle movement, body mechanics, transfers, range of motion and manual muscle testing will influence rehabilitation.

OTA 122 - Origins of Occupation and Performance from the Neonate to Adulthood

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Explores the impact and influences of environment, community and various contexts of the client, focusing on a dynamic and ever changing occupational status through the influences of areas of occupation, contexts, performance patterns, client factors, performance skills, and activity demands from neonate through middle-age development.

OTA 125 - Basic Occupational Therapy Application to Mental Health

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 105, OTA 106, PSY 101 or PSY 102 or PSY 235

Identifies commonly seen signs and symptoms of mental illness that affect health and wellness and learn methods of screening and various occupational therapy techniques for the assessment and treatment of occupational disruption within a variety of contexts. A Level I Fieldwork experience is integrated within this course.

OTA 131 - Geriatric Concerns, Diseases and Treatment Techniques

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 105 and OTA 106.

Explores aging trends and the impact of context and environmental influences on the older individual, focusing on an ever-changing occupational status through the influences of client factors, activity demands, and performance skills and patterns. Identify geriatric diseases and conditions common to occupational therapy and discuss strategies and methods of intervention.

OTA 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

OTA 181 - Geriatric Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 131.

Identifies and provides practical experience in commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods for treatment for the geriatric population from diverse backgrounds in an inter-professional setting. Students will demonstrate universal precautions and safety standards in a variety of situations.

OTA 182 - Physical Disabilities Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 218

Identify and provide practical experience with commonly seen disabilities, aspects of health and wellness, evaluation/assessment techniques, and methods of treatment intervention for conditions affecting adult clients from diverse backgrounds in collaboration with intra-professional and inter-professional team members.

OTA 183 - Pediatric Level I Fieldwork Experience

Credit(s): 1

Vocational Lab Hour(s): 1.50

Corequisite(s): OTA 221.

Provides the student with the practical experience necessary to identify commonly seen disabilities, aspects of health

and wellness, evaluation/assessment techniques, and methods of treatment for the pediatric population from diverse backgrounds in collaboration with intra-professional and inter-professional team members.

OTA 216 - Physical Disabilities Neuro-Retraining

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 121.

Provides skills necessary to utilize the occupational therapy treatment planning process, including age-appropriate assessments, treatment interventions and discharge planning within a client-centered and inter-professional context.

OTA 217 - Occupational Therapy Rehabilitation Techniques

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 121

Examines and demonstrates various treatment interventions and techniques based on aspects of health and wellness and physical/cognitive/psychosocial occupational disruption. The course focuses on adaptive equipment, assistive devices, areas of occupation and specialized physical disability assessments.

OTA 218 - Occupational Therapy Application to Adult Physical Disabilities

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): OTA 121.

Provides students with the ability to identify commonly seen medical and orthopedic diseases and disabilities, aspects of health and wellness, and areas of occupational disruption. Students will learn treatment interventions within appropriate frames of reference through a variety of methodologies and will explore aspects of intervention including, but not limited to, splinting, transfers, positioning and communication techniques.

OTA 221 - Pediatric Concerns, Diseases, Disabilities, and Treatment

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 121 and OTA 122.

Explains the impact of environment, culture and community on the child. Focuses on an ever-changing occupational status through the influences of performance skills. Provides the skills necessary to identify commonly seen diseases and disabilities and treatment techniques used in pediatrics to promote health and wellness. Identifies occupational therapy evaluation/assessment techniques and methods of intervention within the context and environment of health care and the community.

OTA 235 - Professional Management for the OTA

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission into the OTA program.

Provides the student with the basic management skills needed as an occupational therapy assistant as well as provides

an understanding of effective job seeking skills, the role of the OTA in research, professional responsibilities and lifelong learning.

OTA 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

OTA 278 - OTA Seminar

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): OTA 280 or OTA 281.

Provides the opportunity for discussion of Level II experiences and how to apply logical thinking, critical analysis and clinical reasoning strategies to future scenarios. Students will have discussions on continuing lifelong learning opportunities and professional responsibilities.

OTA 280 - Fieldwork in Occupational Therapy I

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): All OTA courses except OTA 278 and OTA 281.

Provides an 8-week, full-time (or an equal amount of hours completed through part-time rotation), supervised fieldwork to develop professional behaviors consistent with the profession's standards and ethics and apply previously learned academic knowledge as an occupational therapy team member. Students will gain experience in the application of occupational therapy treatment process from admission to discharge for clients from a variety of sociocultural backgrounds and age levels in the practice area of physical disabilities to promote health and wellness.

OTA 281 - Fieldwork in Occupational Therapy II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): All OTA courses except OTA 278 and OTA 280.

n), supervised fieldwork to develop professional behaviors consistent with the profession's standards and ethics and apply previously learned academic knowledge as an occupational therapy team member. Students will gain experience in the application of occupational therapy treatment process from admission to discharge for clients from a variety of sociocultural backgrounds and age levels in the practice area of behavioral/mental health, sensorimotor and/or developmental disabilities as well as promoting health and wellness.

OTA 285 - Independent Study

Credit(s): 1-6

Independent Study Hour(s): 2-12

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

Outdoor Studies

OUT 112 - Mountain Orientation

Credit(s): 2

Academic Lab Hour(s): 4

A concentrated field experience in the Colorado mountain environment is provided in this course. Emphasis is on backpacking skills, safety procedures, ecology, geology, geography and group dynamics.

Paralegal

PAR 115 - Introduction to Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): All developmental (sub-100 level)

Corequisite(s): ENG 121 or approval of department chair or instructor.

English/reading courses completed, or approval of department chair and instructor. Provides an understanding of the role of paralegals, issues facing paralegals, the working of the legal system and ethical questions. Legal terminology and an overview of the substantive areas of law will be discussed.

PAR 116 - Torts

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121 and PAR 115 or approval of department chair and instructor.

Focuses on tort law, including negligence, intentional torts and strict liability, with an emphasis on personal injury litigation.

PAR 117 - Family Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121 or approval of department chair and instructor.

Corequisite(s): PAR 115 or approval of department chair and instructor.

Emphasizes domestic law, common property, dissolutions, adoptions, legal separation and other family law issues.

PAR 118 - Contracts

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121, PAR 115, or approval of department chair and instructor.

Examines the basic principles of contract law.

PAR 125 - Property Law

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121, PAR 115, or approval of department chair and instructor.

Focuses on real estate law, ownership, sale, leasing, financing and government regulation of land.

PAR 201 - Civil Litigation

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 122, PAR 115, or approval of department chair and instructor.

Focuses on an intensive study of the legal process including the Federal and Colorado Rules of Civil Procedure.

PAR 208 - Probate and Estates

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 122, PAR 115, or approval of department chair and instructor.

Provides an understanding of the creation and administration of an estate, including wills and trusts and the probate process.

PAR 211 - Legal Research

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): ENG 121, PAR 115, or approval of department chair and instructor.

Introduces the student to basic legal research tools, including statutes, digests, case law, citations, encyclopedias, dictionaries and online data bases.

PAR 212 - Legal Writing

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): PAR 211, PAR 115, ENG 122 or approval of department chair and instructor.

Enables the student to practice the content and conventions of legal writing.

PAR 280 - Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Successful completion (C or higher) of at least 75% of PAR-Prefixed courses or approval of department chair and instructor.

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 business location and with the direct guidance of the instructor.

Petroleum Technology

PET 130 - Oil and Gas Production I

Credit(s): 3

Lecture Hour(s): 3

Familiarizes the student with the duties and responsibilities of the oil and gas production technician. Specifically, students will discuss the history of the oil market, fundamentals of drilling and well completion, and operation of the equipment and systems used by the oil and gas production technician today.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

PET 230 - Oil and Gas Production II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): PET 130.

Familiarizes the student with the duties and responsibilities of the oil and gas production operations technician. Specifically, students will be able to discuss natural gas treatment, dehydration and compressions system and equipment, the produced water treatment and handling system and equipment, auxiliary systems and equipment, artificial lift and enhanced recovery techniques, pumping and transportation systems, safety, health and environmental considerations, basic concepts of refining and processing.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Pharmacy Technician

PHT 111 - Orientation to Pharmacy

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission required.

Orients students to the work of pharmacy technicians and the context in which a technician`s work is performed. Students learn the concept of pharmaceutical care and the technician`s general role in its delivery. The development of new drug products is discussed as well as a variety of issues that touch on attitudes, value and beliefs of success for pharmacy technicians. Students gain an appreciation for the value of obtaining technician certification and the benefits of technicians' active involvement in local, state and national pharmacy organizations.

PHT 112 - Pharmacy Law and Ethics

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Admission to program.

Introduces 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.

PHT 114 - Computer Skills for Pharmacy Technicians

Credit(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Admission to program.

Introduces 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. This course includes integration of an actual pharmacy operation application to allow hands-on technical experience.

PHT 115 - Pharmacology I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to program

Presents the fundamentals of pharmacology, the pharmacokinetic phases, and the basic concepts of normal body function. This course examines diseases which impact the various body systems and the drugs used to treat such diseases, emphasizing disease state management and drug therapy.

PHT 117 - Communication and Professionalism for Pharmacy Technicians

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission to program

Provides fundamental components of theoretical and applied aspects of personal and interpersonal communication related to pharmacy practice. Theoretical aspects include such topics as communication perceptions and barriers, listening, responding, assertiveness and non-verbal communication. Applied aspects include such techniques as role-playing, group discussion and interviewing. This course also examines the methods and practice of interviewing with respect to the roles and functions of both interviewee and interviewer.

PHT 118 - Pharmacology II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to program

Examines the disease states which impact the various body systems and the drugs used to treat such diseases. This course emphasizes disease state management and drug therapy. Serves as the second part of the two-part presentation of the basic concepts of pharmacology.

PHT 170 - Pharmacy Clinical: Institutional

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Admission to program

Provides the students with 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. The preceptor, student, and instructor complete evaluations at completion of the rotation.

PHT 171 - Pharmacy Clinical: Community

Credit(s): 2

Voc/Tech Clinic Hour(s): 4

Prerequisite(s): Admission to program

Provides the students with hands on experience in a community 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, inventory handling and control, drug distribution, processing of third-party claims, and communication with patients. The preceptor, student, and instructor complete evaluations at the completion of the rotation.

PHT 235 - Pharmaceutical Calculations and Compounding Techniques

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Program admission required.

Develops the skills necessary for performing calculations in pharmacy practice and the compounding of sterile and nonsterile products. Includes a review of basic mathematical skills. Enables the student to solve problems involving calculations pertinent to the preparations of pharmaceuticals. These skills are put to practical use in the compounding portion of this course. Preparation of sterile products, parenteral admixtures, TPN solutions and chemotherapeutics, using proper aseptic techniques is taught. The safe handling of antineoplastics and other hazardous drug products, as well as special drug storage requirements, is learned. Emphasizes the importance of accuracy, quality and infection control. Use and maintenance of equipment such as laminar flow hoods, auto injectors and pumps is discussed.

PHT 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Philosophy

PHI 111 - Introduction to Philosophy: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category.

PHI 112 - Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 113 - Logic: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 114 - Comparative Religions: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the major world religions from both the Eastern and Western world such as Hinduism, Buddhism, Confucianism, Taoism, Zoroastrianism, Judaism, Christianity, Islam, Bahá'í and influential preliterate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological) to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within

each tradition. Focus will include the examination of the charismatic leaders, prophets and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 115 - World Religions-West: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Introduces students to religions of the Western world: Zoroastrianism, Judaism, Christianity, Islam, Bahá'í, and influential pre-literate traditions. Utilizes religious studies methods (historical, sociological, legal, psychological and phenomenological), to understand the historical development of each religious tradition in terms of communities, cultural context and modern manifestations; paying particular attention to differences between sects, denominations, schools and factions within each tradition. Focus will include the examination of the charismatic leaders, prophets, and narratives that inform the worldview of each tradition. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 214 - Philosophy of Religion: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the critical examination of the fundamental concepts, ideas and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the problem of evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 218 - Environmental Ethics: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Critically analyzes theories of value of the natural world. Topics include the relation between scientific and moral principles; theories of the moral worth of persons, animals, plants and other natural objects; historical, religious and cultural influences on conceptions of nature; alternative accounts of human relationships and responsibilities to nature, including deep ecology and eco-feminism; and the connection between moral and political values and economic policies. This course is one of the statewide Guaranteed Transfer courses, GT-AH3.

PHI 220 - Philosophy of-Death and Dying: GT-AH3

Credit(s): 3

Lecture Hour(s): 3

Explores the major philosophical questions surrounding death and dying: the metaphysical arguments for and against the existence of a soul and life after bodily death; the epistemological assessment of arguments for the soul and life after death; the ethical justifications taken on positions such as rational suicide and physician assisted suicide, as well as a focus on philosophy's existentialist contribution to questions about the meaning of life and the meaning of death. This course is one of the statewide Guaranteed Transfer courses. GT-AH3.

PHI 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Physical Therapist Assistant

PTA 110 - Basic Patient Care in Physical Therapy

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): Program Admission or Department Chair Approval.

Examines the basic patient care skills for the healthcare practitioner. Enables the student to gain an understanding and demonstrate skills that include positioning, body mechanics, transfers, range of motion, palpation, vital signs, aseptic techniques, bandaging, intermittent venous compression, medical terminology, activities of daily living, wheelchair management, architectural barriers and gait training.

PTA 115 - Principles and Practices of Physical Therapy

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission or department chair approval.

Explores the history of the profession including definition, development and areas of practice. The role of the APTA, the physical therapist assistant and the relationship between the physical therapist, PTA and other health care professionals are investigated. Includes current issues and trends including professionalism, ethics, quality assurance, communications and reimbursement issues such as Medicare, Medicaid, workers' compensation and commercial insurance.

PTA 120 - Modalities in Physical Therapy

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 110.

Examines theory and principles of physical therapy modalities. Course includes therapeutic heat and cold, traction, massage and hydrotherapy.

PTA 124 - Rehab Principles of Medical I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program Admissions.

Investigates the impairments, functional limitations and disabilities resulting from a variety of neuromusculoskeletal conditions. The medical management including pharmacology and its impact on physical therapy rehab principles are discussed. Evidence-based practice for musculoskeletal and neurological system diagnosis will be reviewed as they relate to physical therapy rehab.

PTA 131 - Professional Communications I

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program Admission.

Introduces students to oral and written professional communication in their field. Develops skills in verbal and nonverbal communication, conducting self-critiques and peer reviews, research of professional literature, medical documentation and professional presentations.

PTA 134 - Rehab Principles of Medical II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program Admissions.

Investigates the impairments, functional limitations, disabilities and medical management including pharmacology of a variety of traumatic, immunological, inflammatory and degenerative processes and their impact on physical therapy rehab principles. Evidence-based practice for cardiovascular, respiratory, endocrine and chronic pain diagnosis will be reviewed as they relate to physical therapy rehab.

PTA 135 - Principles of Electrical Stimulation

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Investigates the principles and application of electrical stimulation (ES) modalities currently used in physical therapy practice. Enables the student to understand the electrochemical and physiological effects of electrical stimulation and identify the various forms and applications of ES.

PTA 140 - Clinical Kinesiology

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): HPR 117, Program Admission.

Focuses on the science of human motion, theories of biomechanics and muscle/joint structure and function. Emphasizes basic principles of therapeutic exercise and their application to specific body regions. A laboratory experience that includes the application of kinesiology and exercise principles is integrated in the learning experience.

PTA 141 - Professional Communications II

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): PTA 131.

Builds on PTA 131 - Professional Communications I and develops skills in writing professional documents to patients and other healthcare professionals, participating effectively in meetings, and medical documentation skills.

PTA 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

PTA 205 - Psychosocial Issues in Health Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Program admission.

Explores the psychosocial aspects of the patient/client and health care practitioner. Investigates recognition of and adjustment for psychological, sociological, educational, cultural, economic and political concerns on the delivery of health care services. Communication skills and social and advocacy responsibilities of the health care practitioner are discussed. Enables the student to develop the skills to meet expectations and needs of members of society receiving health care services.

PTA 230 - Orthopedic Assessment and Management Techniques

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 120, PTA 140.

Examines the theory and principles and practices of orthopedic conditions. Includes an understanding of assessment and management techniques pertaining to orthopedic conditions, goniometry, manual muscle testing, gait analysis and posture analysis.

PTA 240 - Neurologic Assessment and Management Techniques

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.50

Prerequisite(s): PTA 120 and PTA 140

Examines the theory and principles of physical therapy with an introduction to assessment, management techniques and advanced physical therapy procedures as they relate to neurologic, cardiac and pulmonary conditions.

PTA 251 - Professional Communications III

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): PTA 141.

Promotes the concepts from PTA 141 - Professional Communications II and further develops written and oral communication skills in the professional arena through correct documentation of patient progress based on observations, dictating progress notes, development of resume, job interview skills, portfolios and an awareness of the national PTA exam.

PTA 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

PTA 278 - PTA Seminar

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Successful completion of all previous PTA courses, department approval required

Provides a summary of all coursework, Internships and prepares the student for transition into the workforce as an entry level PTA. It includes a comprehensive review and mock exam in preparation for the national PTA exam, employment benefits, licensing, state practice act review, professional development, employment opportunities and community service.

PTA 280 - PTA Internship I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): PTA 120, PTA 140

Focuses on initial clinical exposure providing hands on patient practicum skills and techniques. Includes application of basic patient care skills including transfers, range of motion, modalities, bandaging, aseptic techniques and gait

training. Students demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, geriatric or outpatient setting will provide supervision.

PTA 281 - PTA Internship II

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Successful completion of all previous courses, department approval required

Focuses on an intermediate clinical experience providing hands-on patient practicum skills and techniques. Includes continued application of physical therapy procedures of Internship I with the addition of therapeutic exercise, goniometry, manual muscle testing and motor learning techniques. Students demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, rehabilitation, outpatient, geriatric or home health setting provides supervision. During the Internship, the student presents an in-service on a physical therapy-related topic.

PTA 282 - PTA Internship III

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Successful completion of all previous PTA courses, department approval required

Incorporates advanced clinical experience providing hands on patient practicum skills and techniques. Students will refine all physical therapy skills in preparation to enter the field as an entry-level physical therapist assistant. This final experience includes independent practice with an assigned caseload under the on-site supervision of a clinical instructor. The student will present an in-service on a physical therapy-related topic.

Physics

PHY 105 - Conceptual Physics with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 107 - Energy Science & Technology with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055 with a grade of S/C or better.

Explores the science of energy and energy technologies, with a focus on renewable energy resources and clean technologies. It provides a background in the physics of energy, energy transfer and the current state of technology. Students will evaluate the future utilization of renewable technologies. Activities may include investigating conservation of energy, mechanical, electrical, heat and fluid power systems; energy transfer and loss; understanding energy audits; testing solar collectors and wind generators; and investigating hydrogen fuel cells. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Explores the physical world through reasoning, mathematics and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat and thermodynamics. The concepts and theories presented are explored through demonstrations and hands-on experiments. It is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 055.

Expands upon PHY 111 and explores sound waves, electric fields, electric circuits, magnetic fields, light, optics and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

PHY 211 - Physics: Calculus Based I with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Explores the physical world through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics and fluids, and may include thermodynamics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

Credit(s): 5

Lecture Hour(s): 4

Academic Lab Hour(s): 2

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 211 and examines waves, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

PHY 213 - Physics III: Calculus Based Modern Physics

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 201, ENG 121.

Expands upon PHY 212 and explores 20th-century advances in physics. Topics may include special and general relativity, quantum theory, atomic physics, solid state physics, nuclear physics, semiconductor physics and cosmology.

PHY 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Political Science

POS 105 - Introduction to Political Science: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and nondemocratic governments and processes, and international relations. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 111 - American Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Includes the background of the US Constitution, the philosophy of American government, general principles of the Constitution, federalism and civil liberties. Examines public opinion and citizen participation, political parties, interest groups and the electoral process, and the structure and functions of the national government. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 125 - American State and Local Government: GT-SS1

Credit(s): 3

Lecture Hour(s): 3

Emphasizes the structure and function of state, county and municipal governments, including their relations with each other and with national government. Includes a study of Colorado government and politics. This course is one of the statewide Guaranteed Transfer courses, GT-SS1.

POS 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

POS 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Printing Technology

PRT 101 - Introduction to Printing Technology

Credit(s): 1

Lecture Hour(s): 1

Reviews the development of graphic communications, past and present. It includes an overview of the history of printing and publishing, processes, terminology, materials and the importance of printing in contemporary society, and safety issues in the printing lab.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

PRT 112 - Beginning Offset Press

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Introduces fundamental understanding of the offset presses, including delivery, printing head and operation. Covers using the presses with an ink and water fountain solution for a simple job.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

PRT 113 - Intermediate Offset Press

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces the student to the T-Head presses and the quick-copy system, while presenting more detailed information on small presses. The course also instructs students on pressure settings and adjustments, registration techniques and multicolor registering for print jobs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

PRT 114 - Paper Management and Estimating

Credit(s): 3

Lecture Hour(s): 3

Introduces the different facets of paper management and estimating while students prepare and produce small production jobs. This course also teaches students how to estimate paper, press and production times.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Process Technology

PRO 100 - Introduction to Process Technology

Credit(s): 4

Lecture Hour(s): 4

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.

PRO 110 - Safety, Health and Environment

Credit(s): 3

Lecture Hour(s): 3

Provides an introduction to the field of safety, health and environmental concerns within the process industry. Within this course, you will be introduced to various types of plant hazards, safety and environmental systems and equipment, and the regulations under which processing plants are governed.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Psychiatric Technician

PTE 110 - Intro to Behavioral Health Care and Wellness

Credit(s): 3

Lecture Hour(s): 3

Explores basic principles of behavioral health and wellness care in behavioral health settings. This course develops interpersonal and technical skills while working with clients in psychiatric care settings.

PTE 111 - Essential Concepts of Care

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program admission required

Identifies core concepts including role, function, and critical thinking skills needed in psychiatry. Examines medications and treatments for common and special mental disorders population. Enables the student to understand mental illness as a continuum.

PTE 115 - Core Concepts for Advanced Psychiatric Technician

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Program admission required.

Introduces the concepts of nursing process, critical thinking, function, role, and responsibility of a psychiatric technician. Reviews medication administration, parenteral administration, and drug calculation.

PTE 117 - Theoretical Concepts of Psychiatric Care II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): PTE 110

Explores psychiatric problems common to four (4) special populations: children/adolescents, developmentally disabled individuals, aging persons and forensic clients. The student will learn how to recognize and intervene with problems common to these four groups.

PTE 118 - Psychiatric Management Principles

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 117, PTE 171.

Corequisite(s): PTE 172.

Capstone: Explores principles of psychiatric unit management and professional behaviors in psychiatric care. Self-care issues and job-seeking skills are also discussed.

PTE 120 - Application of Behavioral Health Care & Wellness

Credit(s): 5

Lecture Hour(s): 2

Vocational Lab Hour(s): 4.5

Prerequisite(s): PTE 110

Explores basic etiology, symptoms, and interventions for common behavioral and mental health disorders. Provides the opportunity for students to experience the milieu of a behavioral health care setting while providing basic care to clients experiencing common behavioral and mental health issues.

PTE 171 - Clinical Concepts of Psychiatric Care II

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 116 , PTE 170 , or permission of instructor.

Corequisite(s): PTE 117.

Provides clinical application of theory and principles presented in PTE 117 through supervised clinical practice in a psychiatric care setting.

PTE 172 - Psychiatric Management Clinical

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Admission into the Psychiatric Technician program, PTE 170 , PTE 171.

Corequisite(s): PTE 118.

Synthesizes knowledge from prerequisite courses and provides clinical application of theory presented in PTE 118.

PTE 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Psychology

PSY 100 - Psychology of Workplace Relationships

Credit(s): 3

Lecture Hour(s): 3

Focuses on interactions among people – their conflicts, cooperative efforts and group relationships. Examines why beliefs, attitudes and behaviors cause relationship problems in our personal lives and in work-related situations.

Emphasizes the analysis of human behavior, the application of prevention strategies, and resolution of the behavior.

PSY 101 - General Psychology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 102 - General Psychology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, lifespan development and social psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 107 - Workgroup Psychology

Credit(s): 3

Lecture Hour(s): 3

Introduces the psychology of workgroups in the modern workplace. Emphasizes team dynamics, social diversity issues, team building, interpersonal communication skills, goal setting, time and resource management, and consensus decision making.

PSY 110 - Career Development

Credit(s): 3

Lecture Hour(s): 3

Assists students in recognizing their career potential, and provides tools for making realistic decisions concerning educational and occupational objectives.

PSY 117 - Parenting

Credit(s): 1

Lecture Hour(s): 1

Focuses on effective techniques for working with children with emphasis on setting expectations, consideration of individual differences, satisfactory communication and effective parent-child relationships.

PSY 175-176 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

PSY 200 - Research Methodology

Credit(s): 4

Lecture Hour(s): 4

Prerequisite(s): Successful completion of PSY 101 or PSY 102.

Introduces research methods and designs including correlational studies, experimental designs and quasi-experimental designs. Additional topics include evaluations of scientific research, data analysis, report writing and research ethics.

PSY 204 - Relationships: Challenges and Choices

Credit(s): 1

Lecture Hour(s): 1

Enables the student to preserve and enhance couple relationships by understanding the role of gender differences, conflict patterns, communication skills, problem solving, meaning of commitment, fun and friendship.

PSY 205 - Psychology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines gender comparisons in work, courtship, family life and sexual behavior throughout the lifespan. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 207 - Intro to Forensic Psychology

Credit(s): 3

Lecture Hour(s): 3

Introduction to Forensic Psychology is a course in an overview of Forensic Psychology. As such it explores both current research and practice in five areas. These areas are police psychology, criminal psychology, victimology, correctional psychology and the interface of psychology and the courts. The course facilitates an understanding of the numerous careers related to forensic psychology, how to prepare for them and current research and practice in each of the five broad areas of forensic psychology.

PSY 217 - Human Sexuality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Surveys physiological, psychological and psychosocial aspects of human sexuality. Topics include relationships, sexual identity and sexual health. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 226 - Social Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice and interpersonal attraction. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 227 - Psychology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the philosophies of life and death, emphasizing dying, death, mourning and the consideration of one's own death. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 229 - Introduction to Addictive Behavior

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): ENG 121.

Focuses on addictive behavior and its effect on individuals, families and society.

PSY 231 - Positive Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

explore strengths-based research, concepts of happiness, helpfulness and resiliency. The research and theories about human nature will go beyond simply not being mentally ill as a form of mental health, which will include optimism, post-traumatic growth, and how to increase emotional, psychological and social functioning. Overall, this course will be focused on understanding one's own sense of life satisfaction and how to further improve well-being. This course is approved as part of the Colorado statewide Guaranteed transfer curriculum: GT: SS3.

PSY 235 - Human Growth and Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines human development from conception through death, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 237 - Child and Adolescent Psychology

Credit(s): 3

Lecture Hour(s): 3

Explores human development from conception through adolescence, emphasizing physical cognitive, emotional and psychosocial factors.

PSY 238 - Child Development: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on the growth and development of the individual from conception through childhood, emphasizing physical, cognitive, emotional and psychosocial factors. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 239 - Adolescent and Adult Psychology

Credit(s): 3

Lecture Hour(s): 3

Examines growth and development of the individual from adolescence to death, emphasizing physical, cognitive, emotional and psychosocial factors.

PSY 240 - Health Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Focuses on an overview of the scientific study of attitudes, behaviors, and personality variables related to health, illness, and bodily systems. The course emphasizes the interaction of biological, psychological, and social factors that cause illness and influence its treatment and prevention. This is a statewide Guaranteed Transfer course in the GT-SS3 category. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 245 - Educational Psychology

Credit(s): 3

Lecture Hour(s): 3

Focuses on the relationships between theory, research and practice in the areas of learning, child development, motivation and educational assessment.

PSY 247 - Child Abuse and Neglect

Credit(s): 3

Lecture Hour(s): 3

Examines the causes and effects of physical, sexual and psychological abuse and neglect. Intervention and prevention strategies are emphasized.

PSY 249 - Abnormal Psychology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Corequisite(s): PSY 101 or Department Chair Approval.

Examines abnormal behavior and its classification, causes, treatment and prevention. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 250 - Dynamics of Racism and Prejudice

Credit(s): 3

Lecture Hour(s): 3

Focuses on early race relations in the United States, the development of prejudicial attitudes and the social impact, and strategies for positive change.

PSY 265 - Psychology of Personality: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Investigates the major contemporary theories of personality. Covers psychodynamic, behavioral, cognitive-social learning, humanistic, trait and, optionally, neurobiological, existential and/or Eastern perspectives. The underlying assumptions and research support for these theories are appraised. Enables the student to gain an appreciation of the value of alternative theoretical approaches to this subfield of psychology. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

PSY 267 - Stress Reduction with Biofeedback

Credit(s): 3

Lecture Hour(s): 3

Focuses on the biological and psychological basis of stress and the detrimental effects it may have on health. Emphasizes learning and applying stress reduction skills that are monitored with simple biofeedback instruments.

PSY 268 - Organizational Psychology

Credit(s): 3

Lecture Hour(s): 3

Provides a comprehensive study of psychological principles and theories as applied to organizational behavior. Topics include motivation, job satisfaction, conflict supervision, human relations and stress management.

PSY 269 - Psychology of Leadership

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of PSY 101 or PSY 102.

Studies and applies the theories and techniques of leadership and group processes. In addition, introduces leadership skills and experiences with applications in group and community settings.

PSY 275-276 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Public Service

PSV 230 - Introduction to Civic Leadership

Credit(s): 3

Lecture Hour(s): 3

Enables the student to develop a critical understanding of public leadership through the study of pertinent models, theories and research.

Radio and Television

RTV 100 - Introduction to Electronic Media

Credit(s): 3

Lecture Hour(s): 3

Focuses on the study of the market demands involving national, local and international uses of electronic media.

RTV 102 - Beginning Television

Credit(s): 3

Vocational Lab Hour(s): 4.5

Focuses on principles and techniques of television production in theory and the approach of studio and production. Emphasizes producing television programs, beginning with a concept through script to actual studio production, pre-production and post-production.

RTV 103 - Writing for TV and Radio

Credit(s): 3

Lecture Hour(s): 3

Explores writing techniques for television and radio emphasizing professional techniques, format and style.

RTV 108 - Principles of Audio

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): RTV 102.

Focuses on basic audio production techniques to be used in television production. Includes the use of basic audio equipment and mixer to produce audio tracks for radio and television production.

RTV 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

RTV 182 - Internship Radio STA/Audio Production

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Department Chair Approval.

Provides experience in a commercial radio station or an allied industry.

RTV 183 - Internship Tv Studio/Video Production Co.

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Department Chair Approval.

Provides experience in a commercial television station or an allied industry.

RTV 208 - Basic Video Production

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): RTV 102.

Introduces basic videotape production and editing on linear and nonlinear editing systems. Covers producing, writing, directing, lighting, editing and shooting techniques. Enables the student to gain experience in paint and character generator graphics, image processing, transitions and techniques using the Avio and Casablanca nonlinear editors.

RTV 212 - Advanced Television Production

Credit(s): 3

Vocational Lab Hour(s): 4.5

Prerequisite(s): RTV 208.

Introduces additional principles and techniques of television production in theory and the approach of studio and production in news, weather and sports. Emphasizes direction and production development to include single and multicamera production. Examines use of effects and chroming. Includes laws and ethics governing the television broadcast industry and Institutional Television.

RTV 217 - Advanced Television Studio Production

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): RTV 208

Focuses on principles and techniques of television production and direction in a laboratory setting using commercial television broadcast equipment for broadcast and institutional video productions.

RTV 269 - Video Field Production

Credit(s): 3

Vocational Lab Hour(s): 4.50

Prerequisite(s): Department Chair Approval.

Prepares students for production of professional-quality video programming. Students will be afforded the opportunity to attain proficiency in single-camera remote videography, as well as post-production editing and recording engineering.

RTV 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Radiologic Technology

RTE 101 - Introduction to Radiography

Credit(s): 2

Lecture Hour(s): 2

Introduces radiology including equipment, exposure, positioning and the knowledge necessary for the radiography student to provide safe patient care including communication skills, body mechanics, patient transfer, and radiography as a profession.

RTE 111 - Radiographic Patient Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 101.

Corequisite(s): RTE 121, RTE 131, RTE 141, RTE 181.

Introduces the fundamentals of human diversity; and legal and ethical considerations. Includes lecture and laboratory experience in patient care, standard and transmission based precautions, asepsis versus non-asepsis, vital signs, venipuncture, medical emergencies, drug administration, patients with specific needs and end-of-life interactions.

RTE 121 - Radiologic Procedures I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): RTE 101

Introduces the fundamentals of radiographic equipment to safely obtain radiographs, apply radiation safety techniques, and identify related positioning terminology. This course emphasizes identification of anatomy, common pathology, and radiographic terminology of the upper extremities, chest, and abdomen.

RTE 122 - Radiologic Procedures II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): RTE 121.

Reinforces the fundamentals of radiographic positioning of the extremities. This course introduces anatomy, pathology, and skills necessary to perform radiographic procedures of the spine, bony thorax, and abdominopelvic region.

RTE 131 - Radiographic Pathology and Image Evaluation I

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): RTE 101.

Provides a detailed anatomic discussion of the respiratory, digestive, genitourinary systems and related medical terminology. The course will also cover the details of bony anatomy including bone structure, pathology and arthrology.

RTE 132 - Radiographic Pathology and Image Evaluation II

Credit(s): 1.50

Lecture Hour(s): 1.50

Prerequisite(s): RTE 131.

Provides a detailed anatomic/pathologic discussion of the spine, circulatory system, nervous system and skull and related medical terminology.

RTE 141 - Radiographic Equipment/Imaging I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission, RTE 101.

Introduces the fundamental aspects of radiographic equipment including the basic concepts pertaining to x-ray production, x-ray equipment, and photon interactions with matter.

RTE 142 - Radiographic Equipment/Imaging II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): RTE 141.

Provides in-depth knowledge of scatter control, radiographic exposure technique, image acquisition, process, and fluoroscopy. Includes criteria and factors that affect image quality, quality assurance and healthcare informatics.

RTE 181 - Radiographic Internship I

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): Program admission, RTE 101.

Introduces the clinical education experience at the clinical education center. The student applies knowledge learned in the classroom to the actual practice of radiography. Introduces the clinical education experience at the healthcare facility. The course focuses on the application of knowledge to the actual practice of radiography.

RTE 182 - Radiographic Internship II

Credit(s): 5

Internship Hour(s): 15

Prerequisite(s): RTE 181.

Builds upon prior clinical Internship experience to advance student proficiency in the practice of radiography in the healthcare facility. The course focuses on the application of knowledge to the actual practice of radiography.

RTE 183 - Radiographic Internship III

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 182.

Reinforces and builds independence in the clinical Internship experience. Applies radiographic knowledge learned in the classroom and prior clinical Internship experience.

RTE 221 - Advanced Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): RTE 122.

Introduces advanced imaging techniques including radiography of the cranium, facial bones and special radiographic procedures. These concepts are combined with the basic oral communication techniques necessary for the professional radiographer.

RTE 231 - Radiation Biology/Protection

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 142.

Provides the basic knowledge and understanding of the biologic effects of ionizing radiation and radiation protection and safety.

RTE 255 - Multiplanar Sectional Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Radiologic Technology student or imaging professional or permission of instructor.

Offers a course designed to increase knowledge in multiplanar/multimodality sectional anatomy for imaging professionals, radiologic technology students and other interested health care professionals. Correlative studies of line drawings, cadaverous photographs, MRI and CT images are thoroughly studied.

RTE 256 - Bone Densitometry

Credit(s): 2

Lecture Hour(s): 2

Offers an in-depth study of bone densitometry equipment, scanning and interpretation that will prepare the student for the American Registry of Radiologic Technologist certification examination in bone densitometry.

RTE 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

RTE 281 - Radiographic Internship IV

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): RTE 183.

Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the outpatient clinic, as well as increasing proficiency in general radiography.

RTE 282 - Radiographic Internship V

Credit(s): 8

Internship Hour(s): 24

Prerequisite(s): RTE 281

Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the outpatient clinic, portable and trauma radiography, as well as increasing proficiency in general radiography.

RTE 284 - Advanced Clinical (Specialty)

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): Registered with the American Registry of Radiologic Technologists.

Provides the student with supervised hands-on training in advanced field of medical imaging. Allows the student to gain the clinical experience necessary to work in the specified area of advanced practice.

RTE 286 - Advanced Clinical Specialty II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): Registered with the American Registry of Radiologic Technologists.

Provides the student with supervised hands-on training in advanced field of medical imaging. Allows the student to gain the clinical experience necessary to work in the specified area of advanced practice.

RTE 289 - Capstone

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): All core curriculum or permission of instructor.

Corequisite(s): RTE 282.

Prepares the radiology technology student to effectively search for a job in radiography and sit for the American Registry of Radiologic Technologists examination.

RTE 291 - Mammography Internship

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): Registrant must be registered or registry eligible Radiologic Technologist and approval of department chair.

Provides clinical experience for demonstrating and documenting clinical competencies required by the American Registry of Radiologic Technologists for application for registry examination.

RTE 311 - Sectional Anatomy for Medical Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Identifies anatomy in various imaging planes of advanced modalities. Compares normal anatomy with gross pathology on advanced cross-sectional images. Evaluation of anatomy and pathology will include head, spine, thorax, abdomen/pelvis and extremities.

RTE 312 - IV Certificate for Contrast Medium

Credit(s): 1

Lecture Hour(s): 0.50

Voc/Tech Clinic Hour(s): 1

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Prepares the student to perform IV contrast administration including knowledge of arterial and venous anatomy, appropriate puncture sites, necessary equipment and supplies, understanding of different contrast media, injectors and administration safety.

RTE 321 - Theory and Application of MR Imaging I

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental principles of MRI in order to perform clinical MRI examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

RTE 331 - MRI Protocols and Procedures

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Develops the knowledge necessary to perform procedures for imaging various anatomical structures utilizing MRI. It provides instruction on routine parameter selection, patient positioning, coil selection and application and anatomy and pathologies demonstrated on MR images.

RTE 341 - Theory and Application of CT Imaging

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Applies the fundamental and advanced principles of Computed Tomography (CT) in order to perform clinical CT examinations of the human body with special consideration to image production, quality control, terminology, basic procedural steps and MRI equipment and safety.

RTE 351 - CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Covers the skill and knowledge necessary to perform supplemental procedures for imaging various anatomical

structures including the head, spine, chest, abdomen, pelvis and extremities utilizing Computed Tomography. It provides instruction on gross pathological conditions demonstrated on CT images.

RTE 381 - Internship: MRI I

Credit(s): 3

Internship Hour(s): 9

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in MR imaging exams. The Internship allows the student to gain clinical experience and develop proficiency in MRI.

RTE 382 - Internship: CT I

Credit(s): 4

Internship Hour(s): 12

Prerequisite(s): AAS in Radiologic Technology and ARRT Registered.

Provides supervised hands-on training in Computed Tomography exams. The Internship allows the student to gain clinical experience and develop proficiency in CT.

RTE 421 - Theory and Application of MR Imaging II

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 321.

Examines in-depth knowledge of designing MRI pulse sequences, data manipulation, artifacts and quality control and quality assurance procedures. Special consideration will be given to methods to shorten scan time, k-space filling and reconstruction, Fast Fourier Transform and image transfer and storage systems used in healthcare facilities.

RTE 431 - Advanced MRI Protocols and Procedures

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): RTE 331.

Examines specialized advancements in MRI. Emphasis will be placed on the heart and vasculature, functional imaging, contrast agents and their uses, enterography, pelvic run-off and breast imaging.

RTE 451 - Advanced CT Protocols and Procedures

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): RTE 351.

Provides the skill and knowledge necessary to perform advanced specialty procedures for imaging various anatomical structures utilizing Computed Tomography. It distinguishes vascular anatomy and incorporates contrast media injections and contraindication into complex imaging studies.

RTE 461 - Leadership in Medical Imaging

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Examines concepts and skills needed for leadership roles in Medical Imaging. It prepares the student with

communication, time management, supervision, task delegation, conflict management and performance assessment skills.

RTE 462 - Teaching Methodologies in Medical Imaging Education

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): MRI or CT Program Admission.

Provides a general overview of the concepts and theory of Medical Imaging education. It introduces current theories of teaching adult learners in the Imaging Sciences, objective development of active learning activities, classroom assessment techniques and delivering course content through distance-learning formats.

RTE 481 - Internship: MRI II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 381.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in MRI.

RTE 482 - Internship: CT II

Credit(s): 7

Internship Hour(s): 21

Prerequisite(s): RTE 382.

Provides continued hands-on training for the student to perform supervised exams, gain clinical experience and develop proficiency in CT.

Range Management

RAM 205 - Range Management

Credit(s): 4

Lecture Hour(s): 4

Presents the historical and current status of the range livestock industry. Management principles for private and public rangelands, range plant identification and range plant communities are covered.

Real Estate

REE 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

REE 201 - Real Estate Brokers I

Credit(s): 6

Lecture Hour(s): 6

Enables the student, in conjunction with REE 202 - Real Estate Brokers II, to meet the educational requirements of the

Colorado Real Estate Commission for a Colorado Real Estate Brokers' license. This course includes real estate law and practice, practical applications, and current legal issues.

REE 202 - Real Estate Brokers II

Credit(s): 6

Lecture Hour(s): 6

Enables the student, in conjunction with REE 201 - Real Estate Brokers I, to meet the educational requirements of the Colorado Real Estate Commission for a Colorado Real Estate Brokers' license. This course includes Colorado contracts and regulations, closings, and recordkeeping and trust accounts.

REE 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Respiratory Care

HPR 489 - Inter-Professional Capstone

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Department approval required.

Provides a demonstrated culmination of learning within a given program of study.

RCA 105 - Introduction to Respiratory Care

Credit(s): 1

Lecture Hour(s): 1

Introduces the principles and practices of Respiratory Therapy, to include the study of: the profession's history, current and future roles of the respiratory therapist, working cohesively with other professional organizations, quality care and evidence-based practice, patient safety, effective communication with patients, patient health records, principles of infection control, and implications of legal and ethical practices.

RCA 110 - Pharmacology of Respiratory Therapy

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department approval required

Introduces pharmacology associated with respiratory therapy, to include the study and application of prescribed medications for the indications, administration, adverse reactions and calculations; a study of specific topics include patient education of medication delivery devices, patient monitoring devices, utilization techniques, and the standards for therapeutic efficacy in relation to asthma, chronic obstructive pulmonary disease, and smoking cessation.

RCA 131 - Basic Techniques in Respiratory Care

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Introduces the principles and practices of Respiratory Therapy; to include the study and application of infection control, conducting a patient centered interview, performing a cardiopulmonary physical assessment, identifying normal and abnormal structures on a thoracic radiograph, and the application of medical gases to the cardiopulmonary patient.

RCA 132 - Basic Techniques in Respiratory Care II

Credit(s): 5

Lecture Hour(s): 3

Vocational Lab Hour(s): 3

Prerequisite(s): RCA 131, or consent of instructor.

Continues RCA 131 and focuses on airways, aerosol therapy, chest physiotherapy and positive pressure breathing.

RCA 151 - Cardiopulmonary Anatomy and Physiology

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Department Approval Required

Examines the cardiopulmonary anatomy and physiology related to respiratory therapy. This course also includes the study and analysis of the functional interrelationships between the pulmonary and cardiovascular systems.

RCA 153 - Cardiopulmonary Disease

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission.

Covers the pathological abnormalities and clinical manifestations associated with cardiopulmonary diseases. This course includes the study of patient assessment, treatment modalities, and management for both chronic and acute cardiopulmonary diseases.

RCA 156 - Application of Science in Respiratory Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Admission to the program.

Applying the basic concepts of chemistry and physics in relation to the practices of Respiratory Therapy. Interpretation of laboratory data collected from an arterial and/or venous blood sample for identifying a patient's homeostasis with oxygenation and ventilation to maintain a normal acid-base balance. Applying an index of O₂ calculation to determine how gases are exchanged and transported from the atmosphere to the body for the assessment of the cardiopulmonary patient.

RCA 165 - Pharmacology of Cardiopulmonary Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission.

Focuses on a study of the principles of pharmacology and the pharmacologic properties and application of drugs commonly employed in the treatment of cardiopulmonary disease.

RCA 166 - Monitoring and Diagnostics of the Cardiopulmonary Patient I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Provides the student an introduction to the monitoring and diagnostics for the cardiopulmonary patient, to include an analysis of the various clinical procedures, laboratory tests, and monitoring devices.

RCA 230 - Critical Care I

Credit(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): RCA 153 or consent of instructor.

Focuses on the care of critically ill patients. Includes advanced pulmonary physiology and pathophysiology, assessment and monitoring of acute and chronic respiratory failure, mechanical ventilation and emergency respiratory care.

Incorporates a laboratory portion that enables the student to develop skills essential for the assessment and treatment of the critically ill.

RCA 235 - Mechanical Ventilation I

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required

Introduces the principles and practices of invasive and non-invasive mechanical ventilation, to include the study of respiratory failure and physiological effects of mechanical ventilation. This course covers the management of equipment for various types of mechanical ventilator systems.

RCA 236 - Mechanical Ventilation II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.5

Prerequisite(s): Department approval required. **Elaborates on the principles and practices of mechanical ventilation in high-risk situations, to include the study of ventilator graphics, management of patient asynchrony with ventilator support, and long-term mechanical ventilation.**

Elaborates on the principles and practices of mechanical ventilation in high-risk situations, to include the study of ventilator graphics, management of patient asynchrony with ventilator support, and long-term mechanical ventilation.

RCA 246 - Neonatal and Pediatric Respiratory Care

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): Department approval required

Introduces the theory and principles of respiratory therapy unique to pediatric and neonatology. This course examines fetal development, prenatal and antenatal assessment, and high risk delivery. Including the analysis of anatomy and physiology, clinical assessment, therapeutic modalities, and cardiopulmonary disorders for neonatal and pediatric patients.

RCA 251 - Critical Care II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission.

Focuses on selected topic areas in critical care. Includes both technical and management concerns in the intensive care setting.

RCA 256 - Pediatric and Neonatal Care

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Program admission.

Covers aspects of fetal development, neonatology and pediatrics. Cardiopulmonary disorders, respiratory therapeutics, special procedures, labor and delivery will be covered. Students enrolled in this class will also be certified in pediatric advanced life support.

RCA 265 - Professional Development

Credit(s): 2

Lecture Hour(s): 2

Corequisite(s): RCA 283 or consent of instructor.

Reviews the respiratory therapy concepts, theory, and therapeutic applications covered within the program curriculum to prepare for the national credential examination, job placement, and state licensure requirements.

RCA 266 - Advanced Monitoring and Diagnostics of the Cardiopulmonary Patient II

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): Program admission.

Provides the student with an advanced opportunity for analysis and the monitoring and diagnosis of the cardiopulmonary patient, to include current medical diagnostic procedures, laboratory testing, and advance monitoring equipment.

RCA 270 - Clinical I

Credit(s): 4.5

Voc/Tech Clinic Hour(s): 13.5

Prerequisite(s): Department approval required.

Serves as the first patient care internship and focuses on the care and analysis of the noncritical patient. Includes procedures presented in RCA 131 and RCA 132.

RCA 271 - Clinical II

Credit(s): 7.5

Voc/Tech Clinic Hour(s): 22.5

Prerequisite(s): Department approval required.

Serves as the second patient care internship and focuses on the care and analysis of the critically ill patient. Rotations into specialty areas are carried out as the schedule permits.

RCA 272 - Clinical III

Credit(s): 7.5

Voc/Tech Clinic Hour(s): 22.5

Prerequisite(s): Department approval required.
Offers the clinical practicum required for the program.

RCA 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

RCA 280 - Internship I

Credit(s): 4.50

Internship Hour(s): 13.50

Prerequisite(s): RCA 131, RCA 132, or instructor's permission.

Focuses on the care and analysis of the noncritical patient. Procedures include those presented in RCA 131 and RCA 132.

RCA 281 - Internship II

Credit(s): 7.50

Internship Hour(s): 22.50

Prerequisite(s): RCA 280 or instructor's permission.

Focuses on the care and analysis of the critically ill patient. Rotations into specialty areas are carried out as the schedule permits.

RCA 283 - Internship III

Credit(s): 7.50

Internship Hour(s): 22.50

Prerequisite(s): RCA 281 or instructor's permission.

Continues to address the care and analysis of the critically ill patient and specialty rotations. Attempts to more closely evaluate the student's ability to manifest critical judgments in solving clinical problems and understanding professional/departmental activities.

RCA 400 - Current Topics in Pulmonary Disease

Credit(s): 3

Lecture Hour(s): 3

Analyze current issues related to respiratory disease, including pathophysiology, management, and outcomes.

RCA 401 - Sleep Medicine

Credit(s): 3

Lecture Hour(s): 3

Develops a working knowledge in sleep medicine for health care professionals by reviewing and identifying diagnostic procedures, therapeutic interventions, and sleep disorders.

RCA 402 - Advanced Concepts in Respiratory Therapy

Credit(s): 3

Lecture Hour(s): 3

Evaluates and analyzes current monitoring and diagnostic procedures for the cardiopulmonary patient in the acute and non-acute care settings with an emphasis on quality control, correlation of patient data, application of technology, and analysis of therapeutic protocols and procedures.

RCA 478 - Senior Seminar

Credit(s): 2

Lecture Hour(s): 2

Senior seminar for respiratory care creating a senior project that applies knowledge and concepts through the use of problem-based learning methods in the research and evaluation of industry best practices.

RCA 489 - Inter-Professional Capstone

Credit(s): 2

Lecture Hour(s): 2

Provides an opportunity to apply a working knowledge within an inter-professional team to encourage problem solving and communication regarding current health related issues. This course also provides the opportunity for effective collaboration to improve health outcomes for patients and industry.

Science

SCI 105 - Science in Society: GT-SC2

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): MAT 055 with a grade of S/C or better.

Examines issues relating to the way science affects society. Students will investigate issues in information technology, the environment, physics and astronomy, biology, medicine and the interaction of science with politics. The class will focus on gathering MAT 261 accurate scientific information and applying critical thinking skills and the scientific method to analyze how science plays both positive and negative roles in society. Emphasis will be on student research, inquiry and analysis of science-related issues. This course is one of the statewide Guaranteed Transfer courses, GT-SC2.

SCI 155 - Integrated Science I – Physics and Chemistry with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 156 - Integrated Science II – Earth and Life Science with Lab: GT-SC1

Credit(s): 4

Lecture Hour(s): 3

Academic Lab Hour(s): 2

Examines earth and biological systems, living and nonliving environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. Course is for elementary education majors only; both SCI 155 & SCI 156 required. This course is one of the statewide Guaranteed Transfer courses, GT-SC1.

SCI 275-276 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Small Business Management

SBM 101 - Starting a Small Business

Credit(s): 1

Lecture Hour(s): 1

Provides a brief overview of various topics related to starting a small business. Some topics are types of businesses, location, image, insurance, permits and licenses.

SBM 121 - Small Business Planning I

Credit(s): 9

Lecture Hour(s): 9

Provides business owners systematic instruction to give them the tools to make sound business decisions based on the fields of study in small business management. This course guides the student in the collection of necessary information to implement a computerized record keeping system and to prepare a business plan. Discussions will include computer terminology, balance sheet concepts, accounting principles, computerized account reports, legal structures of a business, the basics of contract law, basic human resource management and the business plan components.

SBM 122 - Small Business Planning II

Credit(s): 9

Lecture Hour(s): 9

Guides the student in the collection of necessary information to implement a computerized recordkeeping system and to prepare a business plan. Discussions will include computer terminology, balance sheet concepts, accounting principles, computerized account reports, legal structures of a business, the basics of contract law, basic human resource management and the business plan components. Focuses on implementing a computerized record keeping system.

SBM 131 - Records and Computerization I

Credit(s): 9

Lecture Hour(s): 9

Guides the student in the collection of necessary information to implement a computerized recordkeeping system for the small business owner/operator. Discussion will included computer terminology, application software, balance sheet concepts, accounting principles, computerized accounting reports and business plan components.

SBM 132 - Records and Computerization II

Credit(s): 9

Lecture Hour(s): 9

Covers the implementation of a computerized recordkeeping system for the small business owner/operator. Emphasis will be placed on the application and maintenance of an accurate set of computerized financial records, use of a filing system and compiling a business plan. This course is a continuation of SBM 131.

SBM 141 - Financial Analysis/Planning I

Credit(s): 9

Lecture Hour(s): 9

Covers how actual enterprise cost analysis is calculated to facilitate the development of whole business projected cash flow statements. All facets of record keeping and updating of data will be emphasized, including refining and maintaining of a current accounting system. This course includes the review and revision of business planning goals and objectives.

SBM 142 - Financial Analysis/Planning II

Credit(s): 9

Lecture Hour(s): 9

Covers business analysis through the development of accurate cost and market value accrual balance sheets for the beginning and ending period for the small business owner/operator. Emphasis will be on the measurement and analysis of changes between the two balance sheets. Analysis will include the preparation of an accrual income statement. Financial ratios will be generated to understand their importance to business analysis. Data generated from an established record keeping system will provided the basis for the development of these accrual financial statements.

SBM 151 - Marketing and Risk Management I

Credit(s): 9

Lecture Hour(s): 9

Emphasizes the identification of the strengths and weaknesses of the business and applying them in the development of plans for the business. Includes the development of marketing goals and objectives and the development of budgets, including marketing, into the total operating budget and activities of the business. Provides a review of existing financial trends and activities for further analysis of the small business, measuring past and present performance, and developing risk management plans.

SBM 152 - Marketing and Risk Management II

Credit(s): 9

Lecture Hour(s): 9

Continues from SBM 151 and provides more in-depth processes and planning to strengthen the operator's business through evaluation and planning based on the strengths and weaknesses of the business. The business operator will develop appropriate business, Marketing and Risk Management goals and objectives and be ready to initiate their implementation.

SBM 153 - Marketing, Risk Management and E-Commerce I

Credit(s): 9

Lecture Hour(s): 9

Introduces the development of webpages using structured design to document layout. This course provides the student with hands-on, practical application in creating and maintaining a webpage for small business owners. May include such concepts as webpage layout, text manipulation hyperlinks, graphics, graphics formats, data tables and file

downloading requirements, development of the basic marketing plan, defining your market, listing your page with search engines, and working with multimedia and the website.

SBM 154 - Marketing, Risk Management and E-Commerce II

Credit(s): 9

Lecture Hour(s): 9

Introduces the development of webpages using structured design to document layout. This course is a continued study in e-commerce and marketing for small business owners. It provides the student with hands on, practical application in creating and maintaining a webpage for small business owners.

SBM 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

SBM 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Social Work

SWK 100 - Introduction to Social Work

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the philosophy of the social work profession including the knowledge, values, ethics, roles and skills inherent to generalist social work.

SWK 106 - Introduction to Alcohol and Drugs

Credit(s): 3

Lecture Hour(s): 3

Acquaints the beginning student with various issues related to the field of working with substance and alcohol abuse. This course will also introduce the student to the knowledge base, values, ethics, intervention skills and the diverse population groups served by social workers.

SWK 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

SWK 201 - Human Behavior in the Social Environment I

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of PSY 101 and SOC 101 .

Prerequisite(s)/Corequisite(s): SWK 100.

Focuses on the person in environment throughout the lifespan with an examination of the relationship between biological, psychological, social, spiritual and cultural systems.

SWK 202 - Human Behavior in the Social Environment II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SWK 201

Focus in this course is on an understanding and analysis of larger social systems which include the family, groups, communities and organizations. Emphasis on social systems as an organizing theoretical framework for understanding social functioning and change.

SWK 205 - Social Welfare in the United States

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): SWk 100 (concurrency allowed)

Prerequisite(s)/Corequisite(s): SWK 100.

Introduces students to the profession of social work and social welfare. Students will be presented with an historical and conceptual overview of the social welfare system in the United States. Attention is given to the milieu within which social, political, economic, racial and cultural forces have interacted in the evolution of social welfare.

SWK 275-276 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Sociology

SOC 101 - Introduction to Sociology I: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the basic concepts, theories and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class and race. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 102 - Introduction to Sociology II: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political and economic structures. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

SOC 203 - Urban Socio-anthropology

Credit(s): 3

Lecture Hour(s): 3

Examines how cities and city life are shaped by cultural, social, political and economic forces operating at many different levels. Additionally, SOC 203 examines the history and theoretical roots of urban anthropology and sociology, ethnographic fieldwork in urban environment, and urban social organization in cross-cultural perspectives.

SOC 205 - Sociology of Family Dynamics: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles. This course is one of statewide Guaranteed Transfer courses, GT-SS3.

SOC 207 - Environmental Sociology: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examination of humans and the environment from an ecological perspective. Focuses on industrial and economic growth versus sustainability, natural resources development and management, environmental values and social movements, and comparative perspectives on people's relationship to the environment. Review of the Green movement and other environmental movements and their impacts upon social dynamics, the environment and the evolution of social movements.

SOC 215 - Contemporary Social Problems: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores current social issues that result in societal problems. It focuses on such issues as civil liberties, gender discrimination, substance abuse, crime, poverty and social change. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 216 - Sociology of Gender: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Gives students the theoretical and factual background necessary to understand the phenomenon of gender stratification in American and other cultures. Students will be exposed to a history of gender stratification in human societies, theoretical explanations for this and insights into the consequences of gender differentiation in our world today. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 218 - Sociology of Diversity: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Explores the variety of intergroup relations regarding race, nationality, ethnicity, gender, sexual orientation and other diversity issues. Patterns of prejudice, discrimination and possible solutions to these issues will be addressed. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 231 - The Sociology of Deviant Behavior: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature, identification, and explanation of deviant categories. Theories and philosophies, as well as methods of treatment related to deviancy, will also be considered. The course will study society's attempts to control, change and institutionalize those acts, individuals or groups that a population may deem unacceptable. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 237 - Sociology of Death and Dying: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Provides an opportunity to familiarize students and professionals with the needs and issues surrounding dying and death. This course will provide sociological, psychological, religious, historical and anthropological perspectives for interpreting contemporary American customs dealing with dying, death and bereavement. We will examine the professions associated with death and dying, such as hospice, funeral and crematory institutions, and medical care. This course is one of the statewide Guaranteed Transfer courses, GT-SS3.

SOC 265 - Violence and Culture

Credit(s): 3

Lecture Hour(s): 3

Examines the concepts, relationships, organizations and research as they relate to violence in multiple cultural settings. SOC 265 assists in developing an understanding of societal and institutional causes of violence; explores resources for intervention and treatment; and provides service learning applications in violence assessment, treatment and victim assistance.

SOC 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

SOC 280 - Internship

Credit(s): 0-12

Internship Hour(s): 0-36

Prerequisite(s): Department Chair Approval.

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 business location and with the direct guidance of the instructor.

SOC 289 - Capstone

Credit(s): 0-12

Internship Hour(s): 0-36

Prerequisite(s): Department Chair Approval.

Studies and applies the theories and techniques of leadership and group processes. In addition, SOC 289 introduces leadership skills and experiences with applications in group and community settings.

Spanish

SPA 101 - Conversational Spanish I

Credit(s): 3

Lecture Hour(s): 3

Offers beginning students the skills necessary to understand and speak Spanish. The material includes basic vocabulary, grammar and expressions that are used in daily situations and in travel.

SPA 102 - Conversational Spanish II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 101, or Department Chair Approval.

Offers students the skills necessary to understand and speak Spanish. The material continues to cover basic conversations patterns, expressions and grammar.

SPA 109 - Spanish for Travellers

Credit(s): 2

Lecture Hour(s): 2

Introduces basic vocabulary and expressions useful to travelers in Spanish speaking countries. The course will concentrate on customs, traditions and cultural distinctions to be discovered by a visitor to the destination country. Cultural diversity and global awareness are integral to this course of study.

SPA 111 - Spanish Language I

Credit(s): 5

Lecture Hour(s): 5

Develops students' interpretive, interpersonal and presentational communicative abilities in the language. Integrates these skills in the cultural contexts in which the language is used. Offers a foundation in the analysis of culture.

SPA 112 - Spanish Language II

Credit(s): 5

Lecture Hour(s): 5

Prerequisite(s): SPA 111, or Department Chair Approval.

Expands students' interpretive, interpersonal and presentational communicative abilities in the language across the disciplines. Integrates these skills with the study of the cultures in which the language is used. Offers a foundation in the analysis of culture and develops intercultural communicative strategies.

SPA 114 - Fast-track Spanish I and II

Credit(s): 5

Lecture Hour(s): 5

Designed to bridge beginning SPA courses with intermediate SPA courses. It is designed for students who have studied two years of the target language in high school and possess linguistic and cultural knowledge that true beginners do not, but are not ready yet to move to the intermediate level because they need an in-depth review of essential structures.

SPA 115 - Spanish for the Professional I

Credit(s): 3

Lecture Hour(s): 3

Introduces students to a working knowledge of the target language, cultural behaviors and values useful in various professional fields such as health care, law enforcement, bilingual education, business and others.

SPA 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

SPA 178 - Seminar

Credit(s): 0-12

Seminar Hour(s): 0-180

Provides students with an experiential learning opportunity.

SPA 211 - Spanish Language III: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 112 or Department Chair Approval.

Continues SPA 111 - Spanish Language I and SPA 112 - Spanish Language II in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish Language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

SPA 212 - Spanish Language IV: GT-AH4

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of SPA 211 or Department Chair Approval.

Continues Spanish Language III in the development of increased functional proficiency at intermediate mid level in speaking, aural comprehension, reading, writing, and cultural competency in the Spanish language. This course is conducted predominantly in Spanish. This is a statewide Guaranteed Transfer course in the GT-AH4 category. This course is one of statewide Guaranteed Transfer courses, GT-AH4.

SPA 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Sport Vehicle Technology

SVT 101 - SVT Orientation and Safety

Credit(s): 1

Lecture Hour(s): 0.50

Vocational Lab Hour(s): 0.75

Corequisite(s): MAT 107.

Designed as an orientation to the sport vehicle repair industry. Students receive an overview of job possibilities as well

as learn various types of sport vehicle construction. Focuses on general sport vehicle repair and service shop safety procedures with an emphasis on personal and environmental safety issues. Students also learn the proper handling and disposal of hazardous materials. Names, uses and maintenance procedures for a variety of tools and equipment are addressed.

SVT 102 - SVT Rolling Chassis

Credit(s): 3

Lecture Hour(s): 1.50

Vocational Lab Hour(s): 2.25

Prerequisite(s): SVT 101.

Designed to introduce students to the major chassis components of motorcycles. This class will provide training in the basic servicing of motorcycle frames, suspension, tire, wheel and brake systems. Diagnostic procedure, routine maintenance, minor repair, adjustment and special tools will be studied.

SVT 103 - SVT Electrical Theory

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 102.

Introduces automotive electricity and includes basic electrical theory, circuit designs and wiring methods. Focuses on multimeter usage and wiring diagrams.

SVT 104 - 2 Stroke Engines

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 103.

Introduction to basic two-stroke engine theory, operation and repair.

SVT 105 - 4 Stroke Engines

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 101.

Introduction to basic four-stroke engine theory, operation and repair.

SVT 106 - SVT Electrical Repair

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 105.

Designed to expose students to the thought process required to correctly diagnose sport vehicle electrical systems, as well as provide hands-on training to allow for learning of proper repair techniques.

SVT 107 - SVT Drive Systems

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 106.

Designed to introduce students to drive components used on modern sport vehicles, including transmission assemblies, clutch components, chain and belt drive systems.

SVT 109 - SVT Snow/ATV/PWC

Credit(s): 2

Lecture Hour(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 107.

Designed to train students in the various unique aspects of snowmobile, personal watercraft and ATV repair and maintenances.

SVT 160 - Basic Motorcycle Repair I

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 109.

Designed to expose current and prospective entry-level motorcycle technicians to basic motorcycle maintenance and repair. Focus will be placed on routine and preventive maintenance and producing. This class is the first in a series of classes designed to produce a novice or apprentice-level mechanic. Topics covered in the class include basic safety, hand tool and shop procedure. One objective is to make the learner more familiar with mechanical concepts and more confident in their own ability. Course study may be tailored for each student's specific area of need or interest.

SVT 165 - Basic Motorcycle Repair II

Credit(s): 1

Vocational Lab Hour(s): 1.50

Prerequisite(s): SVT 160.

Designed to build upon concepts and practices learned in SVT 160 and expose current and prospective motorcycle mechanics to basic motorcycle maintenance and repair. Focus will be placed on routine and preventative maintenance. Topics covered will study of motorcycle frame, suspension, tire and wheels. One objective is to make the learner more familiar with mechanical concepts and more confident in their own ability. Course study may be tailored for each student's specific area of need or interest.

SVT 201 - Adv. Rolling Chassis

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): SVT 102, SVT 103, SVT 104, SVT 105, SVT 106, SVT 107, SVT 109, Department Chair Approval.

Designed to build on previous learning and focus students skills as related to the major chassis components of motorcycles. This class will provide advanced training in the servicing and repair of motorcycle frames, suspension, tire, wheel and brake systems. Diagnostic procedure, routine maintenance, major repair, adjustment and special tools will be studied. Hands-on lab activity and actual line work will be the focus of this advanced curriculum.

SVT 202 - Adv. SVT Electrical Syst.

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): SVT 102, SVT 103, SVT 104, SVT 105, SVT 106, SVT 107, SVT 109, Department Chair Approval.
Advanced repair and troubleshooting of sport vehicle electrical systems with an emphasis on ignition and charging system diagnosis and repair techniques.

SVT 203 - Adv. 2/4 Stroke Engines

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Prerequisite(s): SVT 102, SVT 103, SVT 104, SVT 105, SVT 106, SVT 107, SVT 109, Department Chair Approval.
Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of sport vehicle two- and four-stroke engine performance factors. Additionally, repair and renewal procedures for sport vehicles are thoroughly explored.

SVT 204 - Simulated Shop Operations

Credit(s): 6

Vocational Lab Hour(s): 9

Prerequisite(s): SVT 102, SVT 103, SVT 104, SVT 105, SVT 106, SVT 107, SVT 109, Department Chair Approval.
Provides necessary training in general shop operations, including documentation for basic business requirements, basic accounting techniques, shop insurance requirements, safety regulations and customer relations. Provides necessary training in sport vehicle repair operation/shop format study, including training in general vehicle diagnosis, repair, follow-up inspection and performance analysis of sport vehicles.

SVT 205 - SVT Internship

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): SVT 102, SVT 103, SVT 104, SVT 105, SVT 106, SVT 107, SVT 109, Department Chair Approval.
Focuses on student working at an approved job site related to the sport vehicle industry. The student will complete tasks and meet practical objectives as assigning by the employer and agreed upon by the student and Instructor. An on-the-job learning experience at an approved sport vehicle-related business.

Surgical Technology

STE 102 - Intro to Surgical Technology

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): Program Admittance

Introduces the principles and practices of surgical technology including standards of conduct, professional practice, communication, physical, psychological, social and spiritual needs of the surgical patient, death and dying, special populations, physical environment, safety standards, all-hazards preparedness, biomedical science, asepsis and sterile technique, hemostasis, emergency situations, surgical pharmacology and anesthesia, wound healing, sutures, needles, stapling devices and surgical instrumentation, equipment, and supplies. Perioperative technical skills of the surgical technologist will be demonstrated.

STE 103 - Introduction to Surgical Technology Lab

Credit(s): 4

Vocational Lab Hour(s): 8

Prerequisite(s): Program Admittance

Introduces hands-on skills in a mock operating room environment for the preoperative phase of surgical technology that includes scrubbing, gowning and gloving, assisting team members, creating and organizing a sterile field, setting up instrumentation on the mayo stand, surgical case management, operative routines, patient transport, patient positioning, prepping, and draping, as well as learning procedures for counting instruments, sponges, needles, sharps, and other items on the sterile field.

STE 105 - Pharmacology for the Surgical Technologist

Credit(s): 2

Vocational Lab Hour(s): 4

Prerequisite(s): Program admittance

Discuss relevant knowledge as it pertains to surgical pharmacology including the metric system, pharmacology theory, drugs and aspects of anesthesia.

STE 111 - Surgical Procedures and Case Management

Credit(s): 6

Lecture Hour(s): 6

Prerequisite(s): STE 102

Identifies the anatomy, physiology, pathology, and terminology, as well as specific variations in the preoperative, intraoperative, and postoperative care related to general, obstetric, gynecologic, ophthalmic, otorhinolaryngologic, oral, maxillary, plastic and reconstructive, genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neuro surgery. Focus will also be placed on diagnostic procedures and tests, operating room set-up according to the surgical procedure, patient positioning, prepping, and draping, instrumentation, equipment, supplies and drugs, procedural steps, purpose and expected outcomes and possible complications.

STE 121 - Surgical Instrumentation, Supplies & Equipment I

Credit(s): 1

Vocational Lab Hour(s): 2

Prerequisite(s): Program Admittance.

Introduces the history and materials used in the manufacture of surgical instruments, as well as the methods used to maintain, clean, and sterilize surgical instrumentation and equipment. Students will learn supplies, equipment, and the names, category, and use of instrumentation used in general, obstetric and gynecologic, otorhinolaryngology, oral, maxillofacial, plastic, reconstructive and ophthalmic surgical specialties. This course is the first of two courses.

STE 131 - Surgical Instrumentation, Supplies & Equipment II

Credit(s): 3

Vocational Lab Hour(s): 6

Prerequisite(s): Program Admittance.

Introduces surgical supplies, equipment, and the names, category, and use of instrumentation used in genitourinary, orthopedic, cardiothoracic, peripheral vascular and neurosurgery surgical specialties. This course is the second of two courses.

STE 133 - Surgical Instruments Lab I

Credit(s): 1.5

Vocational Lab Hour(s): 3

Prerequisite(s): Program admittance.

Introduces the history and materials used in the manufacture of surgical instruments, as well as the methods used to maintain, clean, and sterilize surgical instrumentation and equipment. Students will learn supplies, equipment, and the names, category, and use of instrumentation used in general, obstetric and gynecologic, otorhinolaryngology, oral, maxillofacial, plastic, reconstructive and ophthalmic surgical specialties. This course is the first of two courses.

STE 134 - Surgical Instruments Lab II

Credit(s): 1.5

Vocational Lab Hour(s): 3

Prerequisite(s): STE 102, STE 103

Introduces the history and materials used in the manufacture of surgical instruments, as well as the methods used to maintain, clean, and sterilize surgical instrumentation and equipment. Introduces supplies, equipment, and the names, category, and use of instrumentation used for genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neurologic surgical specialties.

STE 150 - Surgical Procedures & Case Management

Credit(s): 7

Lecture Hour(s): 7

Prerequisite(s): STE 102, STE 103, STE 133

Identifies the anatomy, physiology, pathology, and terminology, as well as specific variations in the preoperative, intraoperative, and postoperative care related to surgical specialties. Focus will also be placed on diagnostic procedures and tests, operating room set-up according to the surgical procedures, patient positioning, prepping, and draping, instrumentation, equipment, supplies and drugs, procedural steps, expected outcomes and possible complications

STE 151 - Surgical Procedures & Case Management Lab

Credit(s): 4.5

Vocational Lab Hour(s): 9

Prerequisite(s): STE 102, STE 103, STE 133

Introduces surgical case management and the skills required for the surgical technologist to perform in the first and second scrub role in a simulated surgical environment, as it relates to general, obstetric, gynecologic, ophthalmic, otorhinolaryngologic, oral, maxillofacial, plastic, genitourinary, orthopedic, cardiothoracic, peripheral vascular, and neurologic surgical specialties.

STE 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

STE 279 - CST Exam Review Course

Credit(s): 1

Lecture Hour(s): 1

Prerequisite(s): STE 281.

Prepares students for the National Certification Exam administered by The National Board for Surgical Technology and Surgical Assisting (NBSTSA) by introducing test taking skills and strategies for success. Students will review major concepts in the surgical technology program in preparation for the CST examination.

STE 281 - Surgical Technology Clinical Internship I

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 111, STE 112, STE 131, STE 141.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the first of three surgical technology clinical Internships.

STE 282 - Surgical Technology Clinical Internship II

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 281.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the second of three surgical technology clinical Internships.

STE 283 - Surgical Technology Clinical Internship III

Credit(s): 6

Internship Hour(s): 18

Prerequisite(s): STE 282.

Provides clinical hands-on experience for student to perform surgical technology duties in the first-scrub, second-scrub, and observation role during any given surgical procedure with proficiency and increased complexity while progressing towards entry-level graduate achievement. Clinical experience will be documented by procedure, date and student role while verifying case counts throughout the surgical rotation as defined by accreditation standards through a total of 120 cases. This is the third of three surgical technology clinical Internships.

STE 289 - Surgical Technology Capstone

Credit(s): 2

Lecture Hour(s): 2

Prerequisite(s): STE 282, STE 279

Outlines the skills needed in obtaining and keeping a job. Students will learn how to develop a personal marketing plan, set short and long term goals, manage targeted job searches, fill out paper and electronic applications, write a cover letter and resume, and practice mock interviews especially tailored to surgical technology. Students will also continue reviewing major concepts in the surgical technology program in preparation for the CST examination and take a final practice exam.

Theatre

THE 105 - Theatre Appreciation: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre

experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 111 - Acting I

Credit(s): 3

Lecture Hour(s): 3

Covers basic acting techniques and approaches, including scene study, improvisation and script analysis. It includes practical application through classroom performance.

THE 112 - Acting II

Credit(s): 3

Lecture Hour(s): 3

Prerequisite(s): Successful completion of THE 111, or Department Chair Approval.

Continues to explore basic acting techniques and approaches including scene study, improvisation and intermediate script analysis. It includes practical application through classroom performance.

THE 116 - Technical Theatre

Credit(s): 3

Lecture Hour(s): 3

Introduces hands-on methods of constructing and painting scenery and properties and operating stage lighting. Students also learn the proper procedures of using shop equipment and serving on stage crews.

THE 131 - Theatre Production I

Credit(s): 3

Lecture Hour(s): 3

Allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing and administration is available.

THE 132 - Theatre Production II

Credit(s): 3

Lecture Hour(s): 3

Allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing and administration is available.

THE 175 - Special Topics

Credit(s): 0-12

Provides the student with a vehicle to pursue in-depth exploration of Special Topics of interest.

THE 211 - Development of Theatre Greek-Renaissance: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from ancient Greece to the Renaissance, emphasizing all aspects of the art

from period values to analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 212 - Development of Theatre Restoration to Modern: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 215 - Playwriting: GT-AH1

Credit(s): 3

Lecture Hour(s): 3

Gives students the opportunity to learn and practice playwriting techniques, thereby improving creative writing skills. Elements of dramatic structure, dialogue, styles and theatrical practices are emphasized. This course is one of the statewide Guaranteed Transfer courses, GT-AH1.

THE 220 - Directing I

Credit(s): 3

Lecture Hour(s): 3

Covers basic techniques for stage directing in contemporary theatre. Topics to be covered include stage composition, script analysis, work with actors and the collaborative role of the director.

THE 275 - Special Topics

Credit(s): 0-12

Explores current topics, issues and activities related to one or more aspects of the named discipline.

THE 276-277 - Special Topics

Credit(s): 0-12

Provides the student with a vehicle to pursue in-depth exploration of Special Topics of interest.

THE 283 - Internship

Credit(s): 0-12

Internship Hour(s): 0-36

Prerequisite(s): Department Chair Approval.

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 business location and with the direct guidance of the instructor.

Upholstery

UPH 100 - Basic Upholstery Techniques

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Covers the upholstery industry: safety, familiarization with tools and materials, sewing, tacking, layout and pattern work.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

UPH 101 - Auto Upholstery I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): UPH 100 or Department Chair Approval.

Covers auto seat upholstery, including removal and replacement, teardown, correct use of materials, cutting and stretching.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

UPH 102 - Auto Upholstery II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): UPH 101 or Department Chair Approval.

Continues UPH 101, emphasizing skill development. Carpet, trim, convertible tops, tonneau covers and convertible boots are course components.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

UPH 103 - Auto Upholstery III

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Prerequisite(s): UPH 102 or Department Chair Approval.

Introduces repair and/or replacement of armrests, carpet, wind lace, door panels, headliner, convertible tops, tonneau covers and convertible boots.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

UPH 104 - Furniture Upholstery I

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Introduces the mechanics and upholstering of reclining household furniture. Completion of upholstery of a reclining chair is required.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

UPH 105 - Furniture Upholstery II

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Provides instruction in layout, cut, sewing and application of final covers on pillow type household furniture. Recovering of one pillow-back chair is required.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

UPH 106 - Furniture Upholstery III

Credit(s): 3

Lecture Hour(s): 1

Vocational Lab Hour(s): 3

Includes reupholstering larger pieces of household furniture such as couches or loveseats. Completion of upholstery of a couch or loveseat is required.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

UPH 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Veterinary Technology

VET 102 - Veterinary Medical Terminology

Credit(s): 1

Lecture Hour(s): 1

Introduces the student to the structure of veterinary medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the veterinary specific setting.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

VET 116 - Humane Treatment and Handling of Animals

Credit(s): 3

Lecture Hour(s): 2

Vocational Lab Hour(s): 1.50

Focused upon animal welfare and humane treatment during handling and restraint, behavior, safety, equipment choice and typical clinical procedures.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

VET 120 - Office Procedures and Relations

Credit(s): 2

Lecture Hour(s): 2

Presents common veterinary office procedures including administration, professional etiquette, client relations, career development and job searching skills. Enrichment of computer skills in relationship to current veterinary management software will be emphasized.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Welding

WEL 100 - Safety for Welders

Credit(s): 1

Lecture Hour(s): 1

Covers the hazards of welding on health and safety.

WEL 101 - Allied Cutting Processes

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

WEL 102 - Oxyacetylene Joining Process

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Oxy-fuel joining operations.

WEL 103 - Basic Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX10 electrodes.

WEL 104 - Basic Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers Shielded Metal Arc Welding (SMAW) operation utilizing E-XX18 electrodes.

WEL 106 - Blueprint Reading for Welders and Fitters

Credit(s): 4

Lecture Hour(s): 2

Vocational Lab Hour(s): 3

Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 110 - Advanced Shielded Metal Arc I

Credit(s): 4

Lecture Hour(s): 4

Covers Shielded Metal Arc Welding (SMAW) operations utilizing a variety of electrodes and advanced joint designs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

WEL 111 - Advanced Shielded Metal Arc II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Shielded Metal Arc Welding (SMAW) operations utilizing various electrodes and welding codes and standards.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

WEL 115 - Autobody Welding & Cutting

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Introduces welding in all positions on light gauge carbon steel using the GMAW and OAW processes on various joint configurations. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 124 - Introduction to Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 125 - Introduction to Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124.

Covers welding in all positions and on various joint configurations using the GMAW (mig) welding process on carbon steel, stainless steel and aluminum. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 141 - Introduction to Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers welding in the 1F and 1G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel; adjusting parameters and operating equipment, utilizing the various filler materials for each process. Layout procedures will be introduced and practiced, along with welding safety, industry standard soft skills and AWS filler metal classification and selection. Basic math, measuring, computer skills and blueprint reading will be introduced.

WEL 142 - Basic Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 141.

Covers welding in the 2F and 2G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting parameters and operating equipment utilizing the various filler materials for each process. Layout procedures, safety, blueprint reading skills and weld symbol identification will be practiced during this course.

WEL 143 - Intermediate Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 142.

Covers welding in the 3FU and 3GU positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting operating parameters and operating equipment utilizing the various filler materials for each process. Basic metallurgy will be presented.

WEL 144 - Advanced Multi Process Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 143.

Covers welding in the 4F and 4G positions on various joint configurations using the SMAW (stick), GMAW (mig), GTAW (tig) and the FCAW (flux core) welding process on carbon steel, adjusting operating parameters and operating equipment utilizing the various filler materials for each process. Resume writing and interview skills will be presented

and practiced. Advanced blueprint reading will be focused on including study of complex print reading and weld symbols.

WEL 150 - AWS Qualification Testing

Credit(s): 1

Lecture Hour(s): 1

Provides students with the opportunity to complete a welding qualification test in accordance with an American Welding Society code or specification.

WEL 175-177 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

WEL 201 - Gas Metal Arc Welding I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Metal Arc Welding (GMAW) operations on carbon steel utilizing various positions and joint designs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

WEL 202 - Gas Metal Arc Welding II

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Covers Gas Metal Arc Welding (GMAW) operations utilizing various base metals, positions, and joint designs.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

WEL 224 - Advanced Gas Tungsten Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers Gas Tungsten Arc Welding (GTAW) operations utilizing a variety of base metals and advanced joint designs.

WEL 225 - Advanced Gas Metal Arc Welding

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 124, WEL 125.

Covers welding in all positions on carbon steel plate with the GMAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints and safety in the welding industry.

WEL 230 - Pipe Welding I

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 103.

Covers pipe welding operations utilizing the Shielded Metal Arc Welding (SMAW) process in a variety of positions on carbon steel.

WEL 233 - 2G-Horizontal Pipe A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 104 or equivalent.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G horizontal position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 234 - 5G-Vertical Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 235 - 6G-45 Down A.P.I.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 234.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° down position. Welding in accordance with the American Petroleum Institute Pipe Code using the SMAW process with E-XX10 type electrodes.

WEL 239 - 2G-Horizontal Pipe A.S.M.E.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 233.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 2-G Horizontal position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 241 - 5G-Vertical Up A.S.M.E.

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 239.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 5-G Vertical up position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 242 - 6G-45 All Sizes Pipe

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 241.

Instruction in safety, theory and practical applications in joint fit-up, design and welding pipe in the 6-G 45° Uphill position. Welding in accordance with the American Society of Mechanical Engineers Pipe Code using the GTAW process and SMAW process with E-XX18 and E-XX10 type electrodes.

WEL 243 - Testing All Sizes Pipe

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Testing with different sizes of pipe to the American Petroleum Institute Pipe Code and American Society of Mechanical Engineers codes in all positions 2G, 5G, 6G with 2 3/8-inch pipe and 2-inch pipe.

WEL 248 - Pipe Layout

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Using pipe template layout procedures and drawing procedures, perform cutting on pipe. Performs layout such as Y-fittings, laterals, full size tees, elbows, orange peel, bull plug, reducers, reducing tees and branch pipe.

WEL 250 - Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102.

Develops welding and associated skills in metal fabrication.

WEL 251 - Design, Layout and Fabrication

Credit(s): 4

Lecture Hour(s): 1

Vocational Lab Hour(s): 4.50

Prerequisite(s): WEL 102, WEL 124, WEL 250.

Develops advanced welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.

WEL 263 - Applied Metal Properties

Credit(s): 4

Lecture Hour(s): 3

Vocational Lab Hour(s): 1.50

Introduces the study of metal properties, hardness testing, heat treatment, cold working microscopic examination and application of common commercial alloys in industry.

WEL 275-277 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Wind Turbine Technology

WTG 100 - Introduction to Wind Industry

Credit(s): 3

Lecture Hour(s): 3

Introduces students to the wind power generation industry. Topics covered will include physics of wind energy, various sizes and types of wind turbines, reading wind maps for finding the best wind locations. Students will also engage in discussions of the impact of the wind industry on social, environmental, economic and political issues.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

WTG 175 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

This course is restricted. For exemptions or required basic skills assessment information, please see the Basic Skills Assessment page.

Women's Studies

WST 200 - Introduction to Women's Studies: GT-SS3

Credit(s): 3

Lecture Hour(s): 3

Examines the nature and function of women in society from an interdisciplinary perspective, focusing on the similarity and diversity of women's experience over time and across cultures. The course will examine topics such as sex role, socialization, political and philosophical perspectives on women's issues, and women's accomplishments in history, art, literature, science, health issues and the family. Students will gain an awareness of the limitations of traditional scholarship on women and gain a means of practical application of the new scholarship on women's roles and nature. This course is one of the statewide Guaranteed Transfer Courses, GT-SS3.

WST 275 - Special Topics

Credit(s): 0-12

Provides students with a vehicle to pursue in-depth exploration of Special Topics of interest.

Other Courses

HPR 139 - Medical Terminology

Credit(s): 2

Lecture Hour(s): 2

Discusses the structure of medical terms with emphasis on using and combining prefixes, roots and suffixes. This class includes terms related to major body systems, oncology, and psychiatry, as well as clinical laboratory and diagnostic procedures and imaging, and provides accepted pronunciation and spelling of terms used in the healthcare setting.

Catalog Home

Welcome to Pueblo Community College's Online Catalog

This online catalog provides current and prospective students with the most up-to-date information about academic programs and offers advisors and faculty members a number of tools to support their work with student and program planning.

To navigate through the catalog, please use the links on the left side of this page.

Visitors to this site can also take advantage of the "My Portfolio" management tool located at the bottom of the navigation menu to the left. With this function, students have the ability to identify departments, programs and courses they have interest in and store that information for later viewing.

Pueblo Community College's catalog contains general information about the college and its programs, courses, services, staff and policies. Information is subject to change between catalog updates. It is the student's responsibility to become familiar with all academic and administrative regulations and procedures that relate to his or her course of study.

About PCC

Welcome to Pueblo Community College

You've Made the Right Choice!

For 85 years, Pueblo Community College (PCC) has provided the education and training that gives our students the skills they need to qualify for good jobs or transfer to a four-year school. We are a two-year community college accredited by The Higher Learning Commission. We are one of 13 colleges in the Colorado Community College System, the fastest-growing educational system in Colorado. We offer more than 50 associate degree programs, more than 150 certificates, and a Bachelor of Applied Science in Dental. We are a state leader in health care education.

Pueblo Community College has four locations to serve students' educational needs. The main campus is located in Pueblo and serves Pueblo County. The Fremont Campus, located in Cañon City, serves Fremont and Custer counties. Pueblo Community College has locations in southwest Colorado. The Pueblo Community College Southwest Campus is located on Highway 160 between Mancos and Cortez and the Pueblo Community College Southwest Site is located in Durango and serves Archuleta, Dolores, La Plata, Montezuma and San Juan counties.

The approximate average age of our students is 28 and 27 percent are first-time college students. Approximately 83 percent receive some kind of financial assistance in the form of grants, scholarships, work-study jobs and/or student loans. On average yearly sixty percent of our students are female, 34 percent represent a minority and 34 percent are the first generation in their family to attend college. The US Department of Education has designated PCC as a Hispanic-Serving Institution.

We offer a variety of scheduling alternatives to meet your needs. You can choose among day or evening classes, weekend classes and online/hybrid classes and degree programs. To support your education, we offer professional advising services, as well as a wide range of academic support services such as tutoring, learning labs, workshops and adaptive services for those with disabilities. Our services include the PCC Health Clinic the Dental Hygiene Clinic, Cosmetology, Simulation Center and the Anatomy Lab, located on the Pueblo campus. Health services at the Southwest campus are offered as scheduled.

If you are pursuing a four-year degree, PCC is a great place to spend your first two years of study. Our Associate of Arts and Associate of Science degrees are fully transferable to all Colorado public four-year institutions. We offer small classes, plenty of academic support and highly experienced instructors who are focused on helping you succeed.

PCC is a technologically advanced school that aims to provide a skilled and educated workforce to industry through its Gorsich Advanced Technology Center and Health Program facilities. Our partnerships with business and industry help provide the state-of-the-art equipment that enables students to acquire the highly technical skills needed to step right into the workforce upon graduating. PCC also offers hybrid courses. These classes provide an exciting and entertaining mix of learning environments that include blending a part of the traditional classroom with online instruction.

At PCC, you can earn the first two years of coursework towards a teaching degree. We offer Associate of Arts degrees in elementary education, elementary education with an Early Childhood endorsement and secondary education in science, math, English, social sciences, arts and music.

If you like working with people and want to be a social worker or psychologist, PCC is a great place to start. We offer social work classes that transfer to accredited social work programs across the nation. PCC also has great psychology classes that can jump start your path to a career as a psychologist.

PCC partners with a Small Business Development Center, providing free business services to new and prospective small business owners in Pueblo, Fremont and Custer counties. Through our Pueblo Corporate College we offer corporate training, lifelong learning and professional development classes. Our Pre-College Department provides the Gateway to College Program and GED preparation classes.

Established in 1981, the Pueblo Community College Foundation has supported learning for thousands of students. The foundation is committed to working with the college to bring positive changes to the lives of individuals, families and communities.

The Foundation's mission is to align funding for Pueblo Community College through Foundation-approved efforts that support and promote student success. Since its inception, the Foundation has raised more than \$16 million to support PCC, its students and its programs of academic excellence.

The PCC Foundation is honored to have the opportunity to work with friends, alumni, businesses, community organizations and other grantors, each of whom are committed to lending their financial support to our organization with the intent of advancing all aspects of Pueblo Community College. Information may be accessed at the following Website.

Foundation Mailing Address:

900 W. Orman Avenue
Pueblo, CO 81004

Foundation Physical Address:

1018 W. Orman Avenue
Pueblo, CO 81004
719.544.0677

Vision

Pueblo Community College is the first choice for success.

Mission

Pueblo Community College transforms lives, enriches communities and strengthens the regional economy by empowering individual achievement through a continuum of education.

Core Values

- **Achievement:** We embrace a diverse student body attending our institution of higher education and support all individuals in attaining high-quality postsecondary credentials across our academic disciplines. Through our retention efforts across the college, we work to keep students engaged and focused on completing their coursework to become highly skilled professionals and gain the most from their educational pursuits to achieve success in the workforce by meeting the demands of a global economy.
- **Excellence:** We embrace continuous quality improvement and innovation in all areas of the institution. We deliver high-quality programs and services that respond to the needs of the communities we serve and prepare students for success in an ever-changing, diverse and global workplace.
- **Integrity:** We advance our mission ethically and responsibly. We value fair and equitable treatment, participatory decision making and transparent resource management. We have an organizational culture that inspires high performance and accountability for behaviors, actions and results in a collaborative spirit.
- **Respect:** We provide a safe, caring and supportive environment conducive to the success and well-being of students, faculty and staff. We welcome diversity of backgrounds and opinions, recognize individual talents, encourage personal and professional growth, celebrate accomplishments and honor institutional traditions.
- **Scholarship:** We value and promote student, faculty and staff scholarship. We strive to create a student-centered learning environment that cultivates critical and creative thinking, problem solving, intellectual inquiry and global awareness. Through continuing development, we expect faculty and staff to be productive workers, responsible decision makers and servant leaders. We believe that scholarship should occur in all organizational levels through knowledge sharing and effective communication.
- **Teamwork:** We believe inclusive cooperative relationships are critical to the vitality and long-term success of our institution. We strategically pursue mutually beneficial partnerships to help students learn and advance other institutional priorities. We encourage active collaboration within and between departments and operational areas. We believe in the importance of nurturing student-to-student and student-to-faculty/staff interactions as a means of promoting student success.

Purposes

- Prepare students for entry into the workforce, career advancement or career change through certificate and associate degree programs
- Prepare students for transfer to baccalaureate institutions by providing transfer degrees, courses and services
- Provide opportunities to develop and continually update job skills to meet the demands of a technological and global economy
- Provide programs and experiences that foster individual and professional development
- Prepare students for entry-level college courses
- Provide comprehensive services to support the educational experience of a diverse student population
- Deliver instruction through traditional, alternative and distance learning methods
- Provide a quality learning environment supported by teaching excellence and freedom of inquiry
- Support the economic development of the community through business initiatives and partnerships
- Contribute to the community by participating in civic and professional activities

General Education Philosophy

General education at Pueblo Community College is an integral and important part of the student's college experience. General education provides degree-seeking students with a core of basic knowledge, critical thinking skills, intellectual concepts and attitudes that will enable them to function effectively in the community. General education also serves as a foundation to promote lifelong learning.

PCC Assessment of Student Learning

Assessment of Student Learning is a comprehensive initiative to evaluate learning with respect to goals and outcomes that we value and desire for our students and graduates. PCC aims to strengthen its programs by offering students plentiful and varied opportunities to develop, reinforce, and master these competencies throughout their studies.

Successful and meaningful Assessment of Student Learning is collaborative and faculty-driven, requiring the participation of all who are interested in the quality of the educational experience we offer at Pueblo Community College, including students, faculty, administrators, and community partners.

Institutional Student Learning Outcomes (ISLOs)

PCC's shared college-wide goals for student learning are known as Institutional Student Learning Outcomes (ISLOs). All programs emphasize experiences that promote learning in the following five areas. Upon completing a course of study at PCC, students will be able to demonstrate mastery of these core skills:

1. **Critical Thinking & Problem Solving:** the ability to interpret and analyze information, explore implications, construct logical conclusions, and formulate creative solutions.
2. **Effective Communication:** the ability to organize and express ideas clearly, purposefully, and compellingly, attending to the needs of the audience and following disciplinary conventions.
3. **Quantitative Reasoning:** the ability to interpret, explain, represent, and apply quantifiable information to identify connections, formulate reasonable solutions, and defend conclusions.
4. **Textual Literacy:** the ability to comprehend, locate, evaluate, and select and apply suitable information, materials, and methods in order to accomplish tasks.

5. **Professionalism & Social Consciousness:** the ability to demonstrate personal responsibility, interpersonal skills through appropriate conduct and teamwork, and civic and cultural engagement.

At Pueblo Community College, we believe that the systematic assessment of student learning is perhaps the most important aspect of teaching and knowing whether students are learning what we want them to learn as they graduate from a program of study or complete a course. Through assessment activities, faculty and administration may identify key areas of needed improvement in program or course design to improve student learning. Our accrediting body, the Higher Learning Commission, expects that we assess institutional student learning outcomes (ISLOs), program student learning outcomes (PSLOs) and course student learning outcomes (CSLOs) each year on a cycle determined by the faculty. In an effort to record student performance on these outcomes, PCC has adopted the nationally recognized elumen Assessment Management System to facilitate and record our results. The college publishes an annual report on the Assessment of Student Learning to inform all stakeholders of our results and recommended improvements. The PCC Assessment Committee, composed primarily of full-time faculty, develops the assessment plan, establishes the assessment cycle, and provides training materials. Each academic division also has an assessment lead to help faculty complete their assessment tasks each year. The chief academic officer (CAO) and the academic deans support college-wide assessment efforts by providing resources in the form of people, professional development and dedicated time to work on assessment activities.

Academic Quality Improvement Program (AQIP)

We strive constantly to improve the quality of our services to students and the community. To foster this improvement, we have adopted the Academic Quality Improvement Program (AQIP) sponsored by The Higher Learning Commission. Under this process, PCC is committed to continuous, systematic and measurable quality improvement.

PCC Promise

- To always recognize and greet you with a smile
- To listen to you
- To respond to your needs
- To respect and value you
- To celebrate your accomplishments and successes

Colorado Student Bill of Rights

The General Assembly implemented the Student Bill of Rights (C.R.S. 23-1-125) to ensure students enrolled in public institutions of higher education have the following rights:

- a. Students should be able to complete their Associate of Arts and Associate of Science degree programs in no more than 60 credit hours or their baccalaureate programs in no more than 120 credit hours unless there are additional degree requirements recognized by the commission.
- b. A student can sign a two-year or four-year graduation agreement that formalizes a plan for that student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the commission.
- c. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees.
- d. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education.
- e. Students, upon completion of core general education courses, regardless of the delivery method, should have those courses satisfy the core course requirements of all Colorado public institutions of higher education.

- f. Students have a right to know if courses from one or more public higher education institutions satisfy the student's degree requirements.
- g. A student's credit for the completion of the core requirements and core courses shall not expire for 10 years from the date of initial enrollment and shall be transferable.

History of the College

Origins

Pueblo Community College traces its origin to 1933, when Southern Colorado Junior College (SCJC) was incorporated. SCJC classes were held on the top floor of the Pueblo County Courthouse and graduated the first class of 17 students in 1935. In 1936 the first building on the current Orman Avenue campus was built on land donated by the Colorado Fuel and Iron Corporation. One year later, local citizens made a commitment to support the institution with county taxes and organized the Pueblo County Junior College District. The institution was renamed Pueblo Junior College.

Pueblo County voters approved \$210,000 for building facilities in 1938 and, over the next two years, work was completed on an Arts Building and a gymnasium. In 1946, the institution gained approval for vocational rehabilitation training and a new vocational-technical building opened four years later. The school was renamed Pueblo College.

Establishment of Southern Colorado State College

The Pueblo Junior College District was dissolved in 1961 when Colorado's General Assembly enacted legislation to change the status of Pueblo Junior College to a four-year, degree-granting institution governed by the Board of Trustees for State Colleges. The college was named Southern Colorado State College (SCSC). It grew rapidly and offered educational programs both at the Orman Avenue campus and at a newly developing campus north of Pueblo's Belmont residential district.

Development of the College for Community Services and Career Education

The need for additional secondary, post-secondary and adult vocational training in southern Colorado was recognized not only by the college administration but also by the community and many state agencies. Most of the Orman campus buildings had a vocational orientation and the decision to revitalize the campus as a vocational-technical training center was based on both past programs and functional accommodations. In 1974, Southern Colorado State College gave the name College for Community Services and Career Education to the vocational activities located on the Orman Campus. These vocational programs provided training to secondary, post-secondary, adult and special students.

In 1975, the Colorado General Assembly passed legislation that would allow Southern Colorado State College to operate the College for Community Services and Career Education as a technical community college. This change was made to enable the programs to be eligible for state and federal vocational funds within the state's Community College and Vocational System.

We Become Pueblo Community College

In 1978 the Colorado General Assembly passed a bill that changed the status of the College for Community Services and Career Education from a component of the University of Southern Colorado to a separate and free-standing

educational entity. On July 1, 1979, Pueblo Vocational Community College became a State System Community College and on July 1, 1982, the name was officially changed to Pueblo Community College (PCC).

By 1987 PCC had become a comprehensive community college, offering a broad range of general, personal, vocational and technical education programs as well as providing two-year transfer programs to qualify students for admission to the junior year at other colleges and universities. Today we place equal emphasis on vocational and transfer degree programs.

PCC's history of offering courses in Cañon City blossomed into a more permanent presence in 1986 when we leased facilities on the grounds of the Holy Cross Abbey. A community fund drive that raised more than \$1 million allowed us to secure \$8.2 million in state funding for a stand-alone campus. Ground was broken on March 11, 2000, for a new 33,000 square-foot multi-functional building. Classes were first held in the new Fremont Campus facility in fall of 2001.

In October 1987, Pueblo Community College began providing community college educational opportunities to area residents in five southwestern Colorado counties. The campus was named the Southwest Center. The first classes were offered in the spring semester. In February 1988, the Colorado Commission on Higher Education placed the five southwestern counties within the service area of Pueblo Community College.

On January 30, 2008, San Juan Basin Technical College and Pueblo Community College (PCC) signed a Memorandum of Understanding forming an educational partnership to "solidify and enhance the working and long-term relationships between the two institutions ... and to maximize efficiencies and resources as appropriate." On April 14, 2008, the SJBTC Board of Control signed a resolution directing the administrative officers of SJBTC to do all things necessary to effectuate a merger with PCC in as expedient a manner as possible, including working with elected representatives to carry the necessary legislation to make the alliance possible. Legislation for the merger (Senate Bill 09-043) was drafted with support and input from Senator Jim Isgar and Representative Ellen Roberts. The bill was unanimously supported by the Senate and the House Education Committees and signed by Governor Bill Ritter on May 20, 2009.

As a result of Senate Bill 09-043, the former San Juan Basin Technical College and the former Pueblo Community College Southwest Campus operate in Southwest Colorado, Region 9, as PCC Southwest Campus/Site.

Today, PCC is one of the most dynamic and progressive community colleges in Colorado. We continually strive to provide modern facilities, state-of-the-art equipment and comprehensive technical and transfer programs that prepare students to enter the job market or transfer to a four-year school. Our faculty and staff are committed to student success, offering quality classroom instruction and academic support at our four campuses.

Campuses

Pueblo Campus

The Pueblo campus located in Pueblo, Colorado, serves students in Pueblo County. The main campus for Pueblo Community College provides oversight of all college operational functions – eight buildings on 33 acres, where more than 3,356 students attend classes working towards their degrees or certificates. The campus is wireless and has up-to-date technology in classrooms and laboratories, as well as extensive student support services toward academic excellence.

The extensive degree and certificate offerings, which will lead toward a career in business and industry or transfer to a four-year university, can be located in the Degree and Certificate Programs section.

Fremont Campus

The Fremont Campus located in Cañon City, Colorado, provides educational programs and services to the citizens of Fremont and Custer counties. We offer modern facilities, up-to-date technology, a full-service enrollment and academic advising center, a learning resource center, a bookstore, comprehensive nursing and science labs and many student activities. We serve students who are preparing to transfer to four-year colleges as well as those preparing for careers in business and industry.

We offer the following degrees and certifications through the Fremont Campus:

- Associate of Science
- Associate of Arts
- Associate of Arts – Emphasis in Business Management or Social Work
- Associate of Arts – Criminal Justice, Early Childhood Education, Education, History and Psychology
- Associate of Applied Science – Nursing
- Associate of General Studies
- Certificate – Emergency Medical Technician, Emergency Medical-Intermediate, Nurse Aide, Phlebotomy, Fire Science (Wildland), and Structural Welding Introduction
- Emergency Medical Services Program

Courses supporting other PCC degrees and certificates are offered at the Fremont Campus. Students can begin many PCC programs at the Fremont Campus, but may need to finalize programs at a different campus. The campus offers a full complement of GT Pathways (General Education transfer courses).

PCC Southwest Campus

The Southwest Campus located between Cortez and Mancos, Colorado, provides educational programs and services to the citizens of Dolores, La Plata, Montezuma, and San Juan counties in the southwest corner of Colorado. The campus has modern facilities, up-to-date technology and full-service enrollment and academic advising center (Go!Zone), as well as an online bookstore for purchasing textbooks and other supplies. Students can enroll in transfer degree options or career and technical pathways to prepare for transfer to four-year colleges or a career in business and industry.

We offer the following degrees and certifications:

- Associate of Arts
- Associate of Arts – Business Management, Early Childhood Education and Psychology
- Associate of Science
- Associate of General Studies (Generalist)
- Associate of General Studies – Early Childhood Education
- Associate of Applied Science – Automotive Service Technology, Cosmetology, Early Childhood Education, Nursing, and Welding
- Certificates – Automotive, Cosmetology, Early Childhood Education (Director, Group Leader and Infant Toddler), Nurse Aide, Practical Nursing, Southwest Regional Law Enforcement Academy and Welding

We have transfer articulation agreements with Fort Lewis College located in Durango, Colorado and can assist you with transferring to Fort Lewis College or to any other four-year college.

PCC Southwest Site

The Southwest Site located in Durango, Colorado, provides educational programs and services to the citizens of Archuleta County in the southwest corner of Colorado. Modern facilities and up-to-date technology are provided for students. A full-service enrollment and academic advising center (Go!Zone) are available from the Mancos campus. There is an online bookstore for purchasing textbooks and other supplies. Students can enroll in transfer degree options or career and technical pathways to prepare for transfer to four-year colleges or a career in business and industry.

We offer the following degrees and certifications:

- Associate of Arts
- Associate of Arts – Business Management, Early Childhood Education and Sociology
- Pre-Nursing

You are encouraged to check with an advisor to locate the degree or certificate of your choice and the campus location where it is offered. Not all certificate or degree options are available at all campuses. For a complete listing of all Degree and Certificate Programs (and campuses that offer the programs), please visit the following website.

Getting Started at Pueblo Community College

Step 1: START at the Go!Zone Enrollment Center Help Desk

Step 2: Apply for Admission

You may apply for admission one of two ways:

- Apply at the following site. Click Apply Online under the Academics tab.
- Visit any PCC registration station. Administrative personnel will help you apply.

Please refer to Applying for Admission for detailed information about your application.

Step 3: Register for the College Opportunity Fund (COF)

Apply for the COF on the online admissions application. If you do not have access to the internet, you may go to any campus registration station to sign up for the COF.

Step 4: Take the Basic Skills Placement Test

Contact the PCC campus closest to you for the Accuplacer basic skills test schedule. Under some circumstances, you may be exempt from taking the test. Please refer to Basic Skills Testing for more information.

Step 5: Apply for Financial Aid

To apply for financial aid, complete the Free Application for Federal Student Aid (FAFSA) online. We will base your financial aid award on the number of credits you register for each semester. All information, guidelines and policies related to financial aid are available from the PCC Financial Aid Office. Please refer to Financial Aid for more information.

Step 6: Meet with an Academic Advisor

All new students should meet with an academic advisor to establish an educational pathway plan. You can meet with an advisor by going to the Go!Zone for walk-in service or call 719.549.3177 (Pueblo), 719.296.6100 (Fremont), 970.385.2001 (Southwest Site - Durango) or 970.564.6201 (Southwest Campus - Mancos) to schedule an appointment. Continuing students should contact their assigned faculty advisor prior to registering for classes. If you do not yet have a declared major, please visit with an advisor.

Step 7: Register for Classes

Register for classes online. Click on myPCC Portal at the top of the PCC webpage. Sign in to the Portal and click the navigate link on the dashboard tab. The "My Plan" tab will display the classes needed for your program of study. You can also go to the Student tab, then to Registration Tools. Click on the Look up Classes or Add or Drop Classes links to search for classes. Refer to the current PCC Catalog for more information.

Step 8: Attend New Student Orientation

If you are a new or transfer student who is enrolling in more than six (6) credit hours, it is highly recommended you attend an orientation session prior to the start of your first semester. During orientation you will receive valuable information about PCC policies, as well as information regarding college success, study skills, time management and services available to you. Contact the Go!Zone for dates and times or look up AAA 075-077 sections in the schedule of classes. An online orientation is also available.

Step 9: Obtain a PCC Panther One Card (ID Card)

The Panther One ID Card is required at all campus locations – the Main Campus, Southwest Campus and Site, and Fremont Campus.

The card is required for identification at student-sponsored events and in various offices at PCC. All first-time students will be assessed a one-time ID card fee during the first semester they attend. The only time students will be charged additional fees is if the card is lost or needs to be replaced.

Students can obtain a Panther One Card after they have registered for classes by visiting the Welcome Center on the Pueblo Campus or the Go!Zones at the Fremont Campus and Southwest Campus. Photo identification must be presented to obtain an ID card.

Faculty and staff must obtain and display a PCC Id card once they have completed the new hire process through Human Resources.

Step 10: Make Sure You Can Access Your PCC Email Account

This is our primary way to communicate with you. After you become a student, we will not send information to your personal email account. All students should regularly check their college-issued student email accounts so they don't miss important announcements. To access your student email, log in to the myPCC Portal and click the Student Email icon on the top right corner of the page. If you have problems opening your email, please call 1.888.800.9198 for assistance.

Step 11: Arrange to Pay Tuition and Fees

Visit the Cashier's Office or go online to the myPCC Portal, Student Finance tab, and view Tuition Bill to pay your tuition and fees. PCC accepts cash, checks and valid third-party payments. You can also pay your tuition and fees with Visa, Discover, MasterCard or American Express.

Step 12: Register Your Vehicle to Receive a Parking Permit

PCC provides open parking on all campuses. Reserved or restricted parking will be identified with signage. Students, staff, and faculty are required to obtain and display a parking permit for their vehicles. Permits may be obtained at the Welcome Center on the Pueblo Campus or the Go!Zones at the Fremont Campus and Southwest Colorado Community College campuses. Any person utilizing handicap parking must display a state-issued handicap parking placard or handicap license plate.

Parking citations may be issued for violation of the PCC Parking Rules and Regulations. The complete PCC Parking Rules and Regulations can be found at the following website. They may also be obtained at the Welcome Center at the Pueblo Campus and the Go!Zones at the Fremont and Southwest campuses.

Step 13: Purchase Your Textbooks at the College Bookstore

As early as possible before the semester starts, go to the PCC Bookstore or website to obtain your required textbooks and supplies. The PCC bookstores also offer general interest books, art supplies, office supplies, basic school supplies, calculators, greeting cards, clothing, glassware, and gift items. Books can be purchased on campus at Pueblo and Fremont campuses. All students can purchase textbooks at the bookstore website.

Step 14: Complete Haven Plus, Part 1

All new, returning and transfer students are required to complete a sexual violence awareness and prevention program. PCC utilizes the online Haven Plus program for students to fulfill this requirement.

Haven Plus is an interactive program that addresses critical issues of sexual assault, relationship violence, stalking and sexual harassment. Haven Plus also addresses healthy relationships and bystander intervention.

Step 15: Be Sure to Attend Your First Day of Class!

Applying for Admission

- Admissions & Records
- Transfer Applicants

- Admission Policy
- Student Classification
- Change/Declaration of Degree or Major
- High School Students
- Re-admission to PCC
- International Student Applicants
- Limited-Entry Programs
- Residency Classification
- Selective Service Registration Requirements
- First-Year Experience Requirement

Admissions & Records

You will interact with the Admissions & Records Office from the time you apply until you graduate. We provide the following services:

- Receive and process all admissions applications and supporting documents
- Administer all admissions policies
- Coordinate registration
- Process course adds, drops and withdrawals
- Maintain all student academic records, process all requests for transcripts and verify enrollment
- Receive and process Graduation Planning sheets and mail diplomas to graduates
- Provide residency requirements and petitions, student Privacy Act information and access to PCC catalogs and current class scheduling
- Provide information on general enrollment procedures
- Administer Veterans Assistance (VA) services related to student enrollment and VA educational benefits at PCC
- Evaluate credits for transfer students, including previous assessment test scores (ACT, SAT, etc.)

IMPORTANT NOTE: Your Student Records

You are responsible for verifying your records and ensuring that they are accurate and up to date. PCC cannot be held responsible for notifying you in a timely manner if your address and/or telephone number are incorrect. You can update your address and phone information by accessing your myPCC Portal account on the PCC home page using your student ID number and your password.

You will be required to show valid identity documentation when requesting access to your student records: Colorado driver's license, Colorado identification card, valid U.S. passport, out-of-state driver's license, foreign passport w/photo, military ID/common access card, Certificate of Naturalization w/photo, valid I-551, valid EAH/temporary resident, Refugee/Asylee I-94 w/photo, BIA identification card w/photo or VA card w/photo.

Admission Policy

PCC has an open-door admission policy. This means there are no admission requirements if you are 17 years of age or older. However, admission to PCC does not guarantee that you can enroll in certain courses or programs that may have their own specific admission requirements.

You may apply online (click the Apply Online link under the Academics tab), in person at any PCC registration station. The address of the main campus is:

Admissions Office
Pueblo Community College

900 W. Orman Ave.
Pueblo, CO 81004

Student Classification

PCC uses several means of classifying students, depending on the purpose of the classification.

1. **Unclassified/Classified Status**

When you apply for admission, we classify you in one of two ways:

Unclassified – Unclassified students are not eligible for financial aid (including some scholarships).

Classified – Classified students may be eligible for financial aid. Note: All financial aid recipients **MUST** be Classified.

To become Classified, you must:

- Be admitted to PCC,
- Take the Accuplacer basic skills test or be exempted from testing; and
- Officially declare a major in an approved associate degree or certificate program. To declare a major, complete the Change of Program form located on your Student tab in the myPCC Portal.

Effective July 1, 2011, concurrently enrolled postsecondary students may enroll as regular students at PCC. Although concurrently enrolled students are not eligible for financial aid, they are eligible to declare a program of study and pursue a certificate or degree.

2. **Class Rank**

Your class rank is based on the number of college-level semester credit hours you have earned. PCC has two class ranks:

1. Freshman – fewer than 30 hours
2. Sophomore – 30 or more hours

2. **Part-time/Full-time/Auditor Status**

Part-time student

You are a part-time student if you are carrying fewer than 12 credits per semester.

Full-time student

You are a full-time student if you are carrying 12 or more credits per semester.

Auditor

When you audit a course, you enroll in a course for which you receive no formal transcript grade. As an auditor, you regulate your own course attendance, take no examinations and receive no credit. The symbol "AU" is recorded on your transcript in place of a grade. If you wish to audit a course, you must indicate your intent to audit at registration or before the refund/census period ends. Audited courses are not eligible for the COF stipend or financial aid; if you are a veteran, you will not receive veteran's benefits for audited classes. Therefore, you are responsible for the full in- or out-of-state tuition for any courses that you audit.

You must tell your instructor that you are auditing a course.

Change/Declaration of Degree or Major

You may declare or change your degree or major online by completing the change of program form on your Student tab on the myPCC Portal. If you wish to change your major to a health or public safety program or cosmetology, you must be accepted into the program by the department chair. Changing a declared degree or major may affect your financial aid eligibility. You should consult with an academic advisor prior to making any changes. Changes of major will be processed in the term in which they are received until full term census changes received after census will take effect the following term.

High School Students

Concurrent Enrollment Programs

Pueblo Community College offers full-time and part-time concurrent enrollment options, which count both for high school and college credit. Students may take courses to complete mini-certificates, certificates, associate degrees or course requirements that transfer to a four-year university. There are hundreds of courses from which high school students may choose in academic or vocational and technical areas.

Students interested in attending Pueblo Community College while still in high school must demonstrate their ability to be successful in each course they take by meeting minimum requirements. First, students must have a qualifying ACT, SAT or Accuplacer. Second, students must meet the prerequisites for all courses they wish to take. Finally, students must meet the standards of the program to which they are applying as determined by their school district (i.e., GPA, class standing).

High school students interested in a Concurrent Enrollment Program through Pueblo Community College should contact their high school counselor or the Center for Academic Advising in Pueblo – 719.549.3177; Fremont (Canon) Campus – 719.296.6102; PCC Southwest Site (Durango) – 970.385.2001; and PCC Southwest Campus (Mancos) – 970.564.6201 for information, deadlines and application packets.

Effective July 1, 2011, concurrently enrolled postsecondary students may enroll as regular students at PCC. Although concurrently enrolled students are not eligible for financial aid, they are eligible to declare a program of study and pursue a certificate or degree.

Re-admission to PCC

If you are a former PCC student who has not attended PCC for one year or more, you must complete a new application for admission with your current address, phone number, and residency information.

Transfer Applicants

If you have attended another college or university and are seeking admission to PCC for the first time, you are considered a Transfer Applicant. If you are seeking classified status and wish to transfer credit from your previous college, you must ask that college to mail your official transcripts to this address:

Records Office
Pueblo Community College
900 W. Orman Ave.
Pueblo, CO 81004
888.642.6017 – Ext. 3017

Hand-delivered transcripts will not be accepted. Transcripts must be received as soon as possible and within your first term of enrollment.

For more information about transferring from another institution, see the Transferring Credits section of this catalog.

International Student Applicants

An international student is one who attends PCC on a nonimmigrant student visa (usually an F, J or M nonimmigrant visa). Legally admitted immigrants and refugees are not considered international students. Generally, the policies described in this catalog apply to international students as well as domestic students. However, by federal law, some special policies apply only to international students.

Applying for Admission as an International Student

We will consider your application only if you submit all documents by the following deadline dates:

- First Monday in April for Fall semester
- First Monday in November for Spring and Summer semester

If you are a resident of another country, you must submit the following documents to apply for admission:

- An application for admission. You can get an application from this address:
Admissions Office
Pueblo Community College
900 W. Orman Ave.
Pueblo, CO 81004
- Two official transcripts of all work completed in high school, college or their equivalent. One transcript must be in your native language and the other must be in English. The transcripts must contain the following items:
 - Courses taken
 - Grades earned
 - Length of classes
 - Length of school term

In addition, please make sure that the issuing institution includes an explanation of all terminology that appears in your transcript. Your former schools or colleges must send all transcripts directly to the Admissions Office at the above address. We do not accept hand-delivered transcripts. All transcripts must bear the official seal of the issuing institution.

- A financial statement/affidavit with support describing all resources provided for you while you are in the United States. A certified bank statement in the name of the sponsor, issued from the sponsor's bank and dated within the last six (6) months, must be provided for each source of funding. **You cannot register without this statement.** PCC has no institutional funds to support international students. You must be able to meet all financial obligations while attending PCC.
- Verification of health insurance coverage. This insurance is mandatory. You may obtain it through PCC or from your home country. You are required to submit verification of current insurance coverage to the Admissions & Records Office prior to the start of classes.
- English Placement Exam scores. If you are a first-time freshman international student and you are from a country where English is not the only native language, you must meet one of these requirements:
 - *Test of English as a Foreign Language (TOEFL):* A total minimum score on the Internet Based Test of (TOEFL;Bt) 45-46. To register for the TOEFL, write to the Publications Office, P.O. Box 6154, Princeton, NJ 08540, USA; or check with the U.S. Embassy or the U.S. Information Service Center for TOEFL information.

- The TOEFL code number for PCC is 4634. To have TOEFL scores sent directly to PCC, please enter 4634 on your answer sheets when you take the TOEFL examination. If you have already taken the test, enter 4634 on the Score Report Request Forms.
- ELS Language Center: A score of 109.

If you are a **transfer international student**, you must meet one of the above English proficiency requirements and you must have an overall cumulative grade point average of 2.0 or above.

Note: When you submit a document to PCC, it becomes our property. We cannot return it to you. Therefore, please do not submit any document in its original form. Instead, submit an official or certified copy of the document. The official version is a copy of the original that has been notarized or certified by a recognized official source attesting that the document is a true copy of the original.

Other Requirements for International Students

- Complete PCC assessment tests, new student orientation and advising before registering for classes. Your scores on the placement tests will determine which classes you take in English, mathematics, reading and computer literacy.
- **Pay tuition and fees in full at the time of registration.** International students on F-1 visas pay the same tuition and fees as non-resident students.
- Comply with immigration requirements regarding the number of credit hours you take while attending PCC. U.S. Immigration Customs Enforcement regulations require that international students on F-1 visas carry and complete a minimum of 12 credit hours per semester and that they complete their educational objectives within a reasonable period of time. If you do not comply with ICE Regulations, we will report your status to ICE.
- Comply with the minimum grade point average requirements found under *Academic Probation* and *Suspension* in the Academic Regulations section of this catalog.

Limited-Entry Programs

If you want to apply for a limited-entry program, you must apply to the program itself (in addition to applying for admission to the college).

The following programs are limited entry:

Limited Entry Programs	Limited Entry Programs
Automotive	Cosmetology
Dental Hygiene – AAS & BAS	Emergency Medical Services
Fire Science Academy	Law Enforcement Academy
Medical Assistant	Medical Sonography
Nursing	Nursing Aid
Occupational Therapy Assistant	Pharmacy Technician
Physical Therapist Assistant	Phlebotomy

Psychiatric Technician	Radiologic Technology
Respiratory Care Practitioner	Surgical Technology

These programs have specific entrance requirements. You may not enroll in limited-entry program courses until you are formally accepted into the program.

Before you are admitted to a limited-entry program, you must complete a criminal background check and a drug screen. Certain felonies or misdemeanors will preclude you from entering a limited-entry program. For further information, including specific timelines for completion of the background check and drug screen, contact your program advisor.

Upon admission to a health professions limited-entry program, the following additional requirements must be completed:

- Submission of a health certification form documenting current immunizations, TB skin test, CPR training and receipt of Essential Job Functions
- Some program/clinical sites will require a flu and varicella (chickenpox) vaccine
- Purchase of liability insurance
- Purchase of supplies, equipment and/or uniforms specific to program (contact department for detailed information)

It is your responsibility to meet the medical requirements of the program you wish to enter. If you are allergic or sensitive to latex, be aware that in Health and Public Safety programs, latex products are used extensively during training and in the workplace. If you have an allergy or sensitivity, we will ask you to sign a release and you may have to observe special precautions.

Note: Some clinical courses may not be available when you want to take them because of changes occurring in the health care industry. This could extend the length of your program.

Residency Classification

When you are admitted or readmitted to PCC, we classify you as either a *resident* or a *non-resident* of Colorado for tuition purposes, according to the provisions of Title 23, Article 7, Colorado Revised Statutes, as amended. You have the right to challenge your tuition classification by the census date of each semester. To do so, obtain a Petition for In-State Tuition Classification from the Admissions Office and complete and return the petition with the required documentation to the Admissions Office. We will use the documents supplied by you, along with the answers to the residency questions on the petition, to make a final residency decision. Students who are under the age of 23 and unmarried are classified according to their parents' residency status. Contact Admissions for additional information.

To be classified as a *resident*, you must meet two tests of domicile:

1. **Presence:** You must have been physically domiciled in Colorado for twelve (12) continuous months prior to the first day of classes.
2. **Intent:** You must document that Colorado is your permanent state of residence.

It is not enough to document **presence** but not **intent**. Furthermore, you cannot rely on just one document to prove intent. Examples of the kinds of documents you might submit are listed in the following table.

Criteria for Residency	Example of Document
Employment in Colorado	Pay stub
Payment of Colorado state income tax	Colorado state tax return

Ownership of residential real estate in Colorado	Real estate tax bill
Primary residence in Colorado	Colorado state tax return
Graduation from a Colorado high school	High school diploma or transcript
Registration of motor vehicle in Colorado	Car registration
Acceptance of future employment in Colorado	Letter from your future Colorado employer offering you a job
Voter registration	Mailing you received from the County Clerk's Office prior to the last election or verification from the County Clerk's Office
Possession of Colorado driver's license	Copy of your Colorado driver's license or ID card

Deadline: Submit your petition with all supporting documents by the deadline date published on the myPCC Portal for the intended term. We will not review late petitions, those missing documentation and information, or those without a notarized signature.

Selective Service Registration Requirements

Before enrolling at PCC, male students must truthfully declare their selective service registration status on the Application for Admission. You may not enroll if you provide no information or false information. If your status changes in any way, you must notify the Admissions & Records Office. You may register for Selective Service or obtain proof of registration by using the website. Contact the Admissions Office for further information concerning Selective Service requirements.

First-Year Experience Requirement

In accordance with the CDHE policy of enrolling students into credit-bearing, college-level courses and to support the college's goals of persistence, retention, and graduation, effective Fall 2018, all Associate of Arts, Associate of Science, Pre-Nursing Associate of General Studies, and Associate of General Studies degrees without designation offered at Pueblo Community College will include AAA 109 as a first-year-experience requirement.

Note that:

- The AAA 109 First Year Experience course requirement applies to AA, AS, AGS degrees without designation, and the Pre-Nursing AGS degree (but excludes all other Pre-Health AGS programs)
- For new incoming students, AAA 109 is required within the first 15 credits (i.e.: in the first year)
- The AAA 109 First Year Experience course is also strongly recommended for all incoming transfer students, returning students, and students pursuing other programs.

Transferring Credits

Transferring Credits to PCC

To transfer credits to PCC from another higher education institution, please ask your previous institution to **mail** your official transcript to this address:

Records Office
Pueblo Community College
900 W. Orman Ave.
Pueblo, CO 81004

** PCC will not accept hand-carried transcripts.

Electronic Transcripts Receipt Process

E-transcripts may be sent to registrar@pueblocc.edu.

Pueblo Community College will accept electronic transcripts.

Approved Mechanisms:

1. eSCRIP-SAFE transcript delivery network.
2. Electronic Certified.pdf Transcripts with a digital signature available through a secure password-protected database.

These transcripts are password protected, provided by the sender and accepted and handled as official documentation.

Transcripts sent via any other method or to any other email address will not be accepted as official documents and will not be used for transfer purposes.

We need to receive your transcripts as soon as possible and within your first term of enrollment at PCC; otherwise, you may have to re-take courses you took at your former institution or satisfy PCC assessment requirements.

We evaluate your transfer credits according to the following guidelines:

- You must be admitted as a Classified student (one with a declared major) before we can evaluate your transfer credit. We evaluate transfer credits based on the requirements of your major.
- You must submit official transcripts, mailed or electronically certified and delivered from your previous institutions, within your first term of enrollment at PCC. We will not accept hand-carried transcripts.
- We accept transfer credits from regionally accredited institutions recommended by the American Association of Collegiate Registrars and Admissions Officers, and as specified by legislated and CCCS articulation agreements.
- Forty-Five (45) credits is the maximum number of transfer credits that can be applied toward a degree. A minimum of 25 percent of the credits applied to a degree or certificate must be earned at Pueblo Community College.
- PCC will only evaluate credit for transfer on courses with a grade earned of C, P, S, or better.
- You must earn at least 15 graded semester credits at PCC in your program area to receive a degree. They cannot include transfer credits or credits earned for prior learning.
- Your instructional department will evaluate your transfer credits to determine whether they meet department requirements for graduation.
- Please note that some courses that are more than 10 years old may not be transferable. The department chair or dean of your program area will determine whether your transfer credits fall within acceptable time limits. Older credits may be evaluated by the appropriate department chair or dean and their decision will be final.

- We will accept credits you've earned in any Colorado state system community college, or any local district community/junior college which is in compliance with the State Board Policy on degree standards, as meeting degree or certificate requirements in comparable or equivalent programs at PCC.
- The registrar will determine if PCC can accept credits from qualified degree-granting institutions. In most cases, these will be 100- and 200-level courses. If you wish to transfer 300- or 400-level credits to PCC, the records coordinator, your department chair and/or dean will decide how PCC will apply those credits.
- If you are eligible for veterans' educational benefits, you must submit official transcripts from all colleges and universities previously attended or your benefits could be interrupted.
- If we accept your transfer credits, we will post them to your academic record (transcript) after you enroll at PCC. You may review your results online by logging on to your myPCC Portal account.
- The evaluation of previous college work must be completed prior to filing an Application for Graduation. You may appeal a transfer evaluation by contacting the Records Office.
- If you do not enroll in classes, PCC will only hold your transcripts for one year.
- Transfer credits will be awarded as governed by the Colorado Department of Higher Education and State Board policies and System President Procedures.
- If you change your degree or major, you must contact the records office for a re-evaluation of your transcripts.

Transfer Appeals Process

Consistent with the requirements of the Colorado Department of Higher Education, CCCS Colleges have established a Transfer Appeals Process. Based upon initial transcript evaluation of transfer credits completed, a student may appeal any of the following:

1. A decision regarding the transferability of a specific course(s)
2. A decision regarding the placement of a specific course(s)
3. The college's failure to provide a transcript evaluation within the designated 30-day calendar period

To appeal a transfer evaluation, you should meet with the transcript evaluator and/or the Director of Enrollment Services and Registrar.

Prior Learning Assessment (PLA)

Students may earn college credit for non-college or experiential learning acquired through prior schooling, tests, work, or other life experiences. PLA is not awarded for experiences alone, but for the college-level learning that the student gained through the experiences. Such college-level learning must be comparable to PCC courses and must relate to the student's educational objectives and declared program. PLA credit may be earned through standardized tests, challenge exams, published guides or portfolio assessment. All credit assessed for PLA must meet or exceed "C" level work. Students who intend to transfer to another community college in the state system may have their prior learning credits transferred to that college as long as the credits are applicable to the student's declared certificate/degree program. Go to Pueblo Community College PLA Credit for college specific information.

Types of Credit

Standardized Tests

Advanced Placement Program (AP)

Students can receive credit through AP Exams completed in high school. Please visit the following site for a complete list of acceptable AP exams, AP exam cut scores and PCC course equivalencies

College Level Examination Program (CLEP)

The College Level Examination Program (CLEP) is a series of examinations that allows individuals to earn college credit for what they already know, regardless of where they learned it. Please visit the following sites, Site 1 and Site 2, for more information on what tests are available.

International Baccalaureate (IB)

PCC recognizes the International Baccalaureate program and reviews IB credentials on an individual basis. For information, please click on the following site for special conditions for acceptance.

DANTES Subject Standardized Tests (DSST)

Most DSSTs are recognized by PCC as acceptable exams for college credit. DSSTs may be taken at the PCC Testing Center. Call 719.549.3091 or email test_center@pueblocc.edu for more information.

To receive college credit, students who take any standardized test must request that their scores be sent directly to the PCC Records Office. There is no charge for PCC to evaluate standardized test results for credit.

Challenge Examinations

PCC-approved exams such as objective tests, essays, oral presentations or hands-on demonstrations may be used to evaluate students' competencies in specific courses listed in the PCC Catalog. These comprehensive exams are the equivalent of the final exam of the course challenged and are available at the option and approval of the appropriate dean. Only one exam for a particular course may be arranged per term. Challenges must be completed prior to registering in the course challenged. The cost for a Challenge Exam is \$45 per credit hour.

Published Guides

ACE-Military

PCC uses the credit recommendations of the American Council on Education (ACE), as published in the Guide to the Evaluation of Educational Experiences in the Armed Services, to evaluate military training and learning experiences.

ACE-Workforce Training

PCC uses the credit recommendations from the ACE Workforce Training as documented on the ACE Transcript. See National Guide to College Credit for Workforce Training for information.

Non-Accredited Training

PCC used the credit recommendations from The National College Credit Recommendations Service as documented on the NCCRS transcript. Information can be found at the following site.

To receive college credit, students should request that the transcripts be sent directly to the PCC Records Office. There is no charge for PCC to evaluate credit from published guides.

Portfolio of Learning Outcomes

Admitted students who have declared a program of study may petition for credit by developing a portfolio that documents and details learning experiences comparable to those available in PCC courses. A faculty member in the appropriate program area will evaluate the portfolio and determine what, if any, credit will be given. Only one portfolio evaluation for a particular course will be permitted during any one semester. The cost for a portfolio evaluation is \$65 per credit hour.

Graduation Requirements

Students may use PLA Credit to fulfill all degree/certificate graduation requirements except for the mandatory 25 percent residency requirement. For more information on PLA options, students should contact their faculty or academic advisor or the PCC Records Office at 719.549.3017.

Transferring Associate Degrees to Other Institutions

Colorado's Statewide Transfer Agreements between public colleges and universities guarantees that when you complete your AA or AS degree – at least 60 approved credit hours of course work carrying a C grade or better in every course – you can transfer to any baccalaureate liberal arts and sciences major (e.g., English, History, Mathematics) at a Colorado public college or university and graduate after earning an additional 60 credit hours. While you are guaranteed not to have to take more than 60 hours to graduate, a variety of factors will determine whether or not you will receive your bachelor's degree in an additional two years. You must consult with your academic advisor to determine which courses to take at PCC to prepare you for your chosen bachelor's degree.

This agreement does not apply to Business, Elementary Teacher Education or Early Childhood Teacher Education and some AGS degrees, as all of these have statewide articulations that have specific lower division requirements. Save time by seeing your transfer advisor at your earliest opportunity for transfer guides.

This AA/AS transfer agreement applies to courses completed at any Colorado community college. Credit earned for prior learning, Advanced Placement, correspondence courses, CLEP and other tested-only credit may not apply. The institution to which you transfer will evaluate these credits according to its own policies. If you disagree with the institution's evaluation of your PCC credits, you may contact PCC to appeal our calculation of your transfer credits.

Transcripts

To order official transcripts, you may either order online through Parchment or print the "Request Official Transcript form" Please use the form for coursework prior to summer 1987 or San Juan Basin Technical College. Please contact your campus Go!Zone to see if transcript pick-up is available. There is a minimum fee of \$3 per transcript.

Unofficial transcripts are available free of charge through the myPCC Portal. Please check your unofficial transcript prior to ordering official transcripts to ensure your grades and/or degree has been posted to your transcripts.

If you owe money to PCC or any other CCCS College, we will not issue your transcript until your debit is cleared.

PCC will not provide copies of your previous colleges' transcripts. If you need a copy of another college's transcript, please contact that college directly.

Financial Aid

Financial Aid Office

The PCC Financial Aid Office administers a comprehensive program of grants, scholarships and loans. Grants and loans are based on need. Scholarships are based mainly on academic ability and, in some cases, need. Work-study opportunities are based primarily on need.

To apply for financial aid, complete the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.ed.gov. If you have questions about financial aid guidelines and policies, contact the PCC Financial Aid Office or call 719.549.3200.

GAINFUL EMPLOYMENT INFORMATION

The US Department of Education requires disclosure of information for any financial aid eligible program that "prepares students for gainful employment in a recognized occupation."

Priority Deadlines for Applications

Complete the FAFSA application as early as possible. Our awards are subject to the availability of funds. We give top priority to full-time students who show exceptional financial need and who submit completed applications by the following dates:

Fall Semester	March 15
Spring and Summer Semesters	November 1

Though we do accept applications later than these dates, we give priority to those who meet these deadlines.

Eligibility for Financial Aid

To be eligible for financial aid, you must

- be a U.S. citizen, national or permanent resident
- have a high school diploma or GED
- be accepted to PCC as a degree-seeking (Classified) student
- be enrolled in an eligible program at least half time (six credit hours) for most Federal and State aid programs and full time (12 or more credit hours) for most scholarships
- submit a complete financial aid file that includes all required supporting documents
 - verification worksheets, tax transcripts from the IRS, W2s, social security cards, selective service registration, copies of high school diploma, or GED, etc.
- make satisfactory progress toward a degree or certificate and be within the regulatory limitations of maximum attempted credits, and
- clearly establish financial need for need-based financial assistance

You are not eligible for financial aid if you

- are concurrently enrolled in high school, or
- owe a refund on a federal grant, or
- are in default on a federal student loan, or
- are in a certificate program which is less than 16 credit hours, or

- have already earned a bachelor's degree (unless you are applying for student loans).

The Financial Aid Office will make every effort to keep you informed about the status of your application; however, you should contact the office to find out what information we might still need to complete your file.

Types of Awards

Grants

Federal Pell Grant

This is the basic award to which other federal and non-federal sources may be added. The amount of the Pell Grant depends on your financial need, the cost of education, and the amount of time you will be enrolled during the school year. As with all grants, you do not have to pay back a Pell Grant provided you do not withdraw during a semester.

Federal Supplemental Educational Opportunity Grant (FSEOG)

This grant provides additional financial assistance to exceptionally needy undergraduate students who are also Pell Grant recipients.

Colorado Student Grant (CSG)

This grant provides financial assistance to Colorado residents who otherwise would be unable to pursue postsecondary education. Priority for these funds goes to residents of Colorado who are eligible for a Pell Grant.

Work Study

The College Work Study Program (CWSP) provides employment for full- and part-time students for 10 to 20 hours of work per week. Most work study funds go to students who demonstrate financial need, with remaining funds available to employ other students in areas related to their academic and career goals. Funds are provided by the Federal Work Study Program and by the Colorado General Assembly.

Loans

The William D. Ford Federal Direct Loan Program provides low-interest loans to qualified students to help meet educational expenses. Loans are secured from and are insured by the Federal government. If you are a first-time borrower, you must complete Stafford Loan Entrance Counseling to qualify for this loan. Student loans are a supplement to other federal, state, institutional and private student financial aid programs and you must pay them back.

Scholarships

Scholarship funds are available from a variety of sources: the State of Colorado, the PCC Foundation, corporations, businesses, foundations, individuals, civic organizations, service clubs and similar organizations. We award scholarships based on academic ability, special educational interests, talent and, in some cases, need. Each scholarship has its own guidelines for application and selection; contact the PCC Financial Aid Office to obtain applications for the scholarships you might qualify for at the following site.

Return of Federal Title IV Financial Aid Funds

If you withdraw, officially or unofficially, during a semester in which you are receiving federal Title IV Financial Aid funds, you must return a portion of the funds. We use the Return of Title IV Funds Calculation to determine how much you owe. This calculation is based on how much of the semester you complete. If you complete more than 60 percent of the semester, you have earned all of your award and owe nothing to the College. If you complete 60 percent or less of the semester, you must return the unearned funds to the college. You also must pay any institutional charges that result when we return funds to the federal government. Contact the Financial Aid Office for more information.

Financial Aid Warning, Probation and Ineligibility

The Financial Aid Office monitors your academic progress if you are a recipient of federal, state or institutional financial aid. We monitor progress in three areas:

- Grade point average (GPA) – you must attain a minimum cumulative GPA of 2.0.
- Completion rate – you must complete 67 percent of all cumulative attempted credits.
- Maximum time frame – you must complete your degree/certificate by the time you have attempted 150 percent of the credit hours required in your program.

If you do not attain the minimum grade point average or completion rate, we will place you on warning or ineligibility. If you have 0 percent completion within a semester, you will become ineligible. If you are on financial aid warning or probation, you may continue to receive financial aid subject to approval. If you are on financial aid ineligibility, you are no longer eligible for financial aid.

Note: Financial aid warning/probation/ineligibility is different than academic probation/suspension. Please see the Academic Regulations section of this catalog for information about academic probation/suspension.

Contact the PCC Financial Aid Office for more information.

Other Benefit Programs

Veterans Administration Educational Benefits

With certain exceptions, PCC courses are approved for the training of veterans and eligible dependents. If you plan to use VA educational benefits, contact the Admissions staff in the Go!Zone at the Pueblo Campus or call 719.549.3013 immediately after deciding to attend PCC. You can expect a six- to eight-week VA processing time for your application.

You are responsible for payment of book costs whether or not your VA educational benefit payments have started.

It is your responsibility to notify the Admissions staff in the Go!Zone of any address and/or enrollment changes such as course adds and drops, change of major, other schools attended and any other information related to your academic standing.

Veterans Attendance and Satisfactory Progress

If you do not attend regularly or make satisfactory, systematic progress toward an educational objective, you will have to repay the VA. If you are placed on academic suspension, the VA will discontinue your benefits for the duration of the suspension.

The school maintains a written record of the previous education and training of the veteran or eligible person and clearly indicates that appropriate credit has been given for previous education and training, with the training period shortened proportionately, and the veteran or eligible person and the Department of Veterans Affairs so notified.

VA students' records must be kept for 3 years following the ending date of the last period certified to VA. Referenced law: Title 38 CFR 21.4209(f)

Western Undergraduate Exchange

The Western Undergraduate Exchange (WUE) is a program allowing students in 14 participating states to enroll in designated two-year institutions at a special, reduced tuition rate applicable only to WUE students. PCC or CCC Online tuition rates are not reduced. Colorado is a WUE participating state. Entry is allowed to approved certificate and degree seeking students. Undeclared students are not WUE eligible. WUE students are not eligible for the College Opportunity Fund (COF) stipend.

Residents of the following states should contact the Admissions Office for further details: Alaska, Arizona, California, Commonwealth of the Northern Marianas Islands, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming.

Tuition and Fees

Calculating the Cost of Tuition: The College Opportunity Fund (COF)

The State of Colorado historically subsidized higher education for in-state students by giving money directly to the colleges. In 2004, the Colorado Legislature enacted a law establishing the College Opportunity Fund (COF) as a new way for Colorado to provide state financial support to eligible undergraduate students. With the start of fall semester 2005, this money is being set aside in the form of a stipend for each undergraduate student, in an account the student creates by signing up at the following COF website. The student designates which institutions of higher learning are to receive stipend funds on their behalf. The money is applied to the in-state student's tuition if the student applies for and authorizes the use of the stipend, and it will appear as a credit on the tuition bill. Currently the College Opportunity Fund (COF) stipend is estimated to be worth \$94 per credit hour.

Page edited: 2021-07-28

Projected tuition costs for the 2021-2022 academic year¹:

Tuition	Tuition Only	Less Estimated COF Stipend	Student Share of Tuition
Resident	\$247.35	\$94	\$153.35
Resident CCCOnline & PCC Online	\$357.20	\$94	\$263.20
Resident - Nursing Courses*	\$324.70	\$94	\$230.70
Resident - Dental Hygiene**	\$399.15	\$94	\$305.15
Non Resident	\$629.25		\$629.25

Tuition	Tuition Only	Less Estimated COF Stipend	Student Share of Tuition
Non Resident - CCCOnline and PCC Online	\$401.25		\$401.25
Non Resident Nursing	\$643.65		\$643.65
Non Resident - Dental Hygiene	\$638.30		\$638.30

*Includes nursing tuition differential \$77.35/credit

**Includes dental hygiene tuition differential \$151.80/credit

Bachelor Programs	Tuition Only	Less Estimated COF Stipend	Student Share of Tuition
Resident Dental Hygiene	\$409.45	\$94	\$315.45
Resident Respiratory Care	\$409.45	\$94	\$315.45
Resident Radiologic Technology	\$409.45	\$94	\$315.45
Resident Nursing	\$444.00	\$94	\$350.00
Non Resident Resident Dental Hygiene	\$409.45		\$409.45
Non Resident Respiratory Care	\$409.45		\$409.45
Non Resident Radiologic Technology	\$409.45		\$409.45
Non Resident Nursing	\$444.00		\$444.00
Advanced Paramedic Practitioner	\$357.20	\$94	\$263.20
Secured Software Development	\$344.15	\$94	\$250.15
Non Resident Advanced Paramedic Practitioner	\$401.25		\$401.25
Non Resident Secured Software Development	\$610.90		\$610.90

Fees not included - see Mandatory Student Fees

¹**These estimated costs are subject to change without prior notice or obligation.**

Tuition Rates for Armed Forces Members and Their Families

A member of the armed forces who is on active duty for more than thirty (30) days (during enrollment), whose permanent duty station is in Colorado, cannot be charged out-of-state tuition. Even if there is a change in the permanent duty station, as long as the person is continually enrolled they must still be charged in-state tuition (this also applies to

their spouse and/or dependent children). Contact the Admissions Office for the Certification for Military Tuition Status form.

Fees

Registration Fee: \$14.60 per semester

Mandatory Student Fees

The following fees are assessed on a per-credit-hour basis up to a maximum of 12 credit hours per campus/site.

Campus/Site Fees:	Amount
Student Use Fee	\$3.57
Technology Fee	\$10.68
Facility Site Use Fee (Bayfield, Durango)	\$1.60
Parking (Pueblo, Fremont, Mancos)	\$1.60

Charges at Pueblo Campus Only	Amount
Student Center Fee	\$8.04
Fitness Center Fee	\$1.22
Student Life Facility	\$8.89
Health Clinic Fee (6 credits and up, flat charge)	\$5.33

Additional information on instructional program fees and course pass thru fees can be found on the PCC website under the Additional Fees tab.

Miscellaneous Fees *

The following miscellaneous fees will be charged where appropriate:

Additional Parking Permit	\$1.00
Deferred Payment	\$10.00-\$30.00
Health Professions	\$10.00

Return Check Charge	\$25.00-\$40.00
Student Identification Card	\$10.00
Student Identification Card (replacement)	\$10.00
Student Records (per copy in advance)	\$2.00
Accuplacer Exam (per test session)	\$10.00

*** These estimated costs are subject to change without prior notice or obligation. Additional cost may be incurred as required by program (e.g., background check/drug screen, immunization, program-specific supplies, etc.). Students should check with their program for additional cost information.**

Financial Obligation

When you register for one or more classes, you must pay all of your tuition and fees unless you officially drop your courses within the first 15 percent of the term (by the end of the refund period). If you fail to pay tuition and fees, you might incur collection fees, attorney fees, interest or other costs. If you have a financial obligation to PCC, we will not register you, give you your semester grades, issue your diploma and final transcript or mail your official transcript to other institutions.

Billing

Statements can be obtained anytime through the myPCC Portal.

Methods of Payment

PCC accepts cash, checks and valid third-party payments. You may also pay tuition and fees with Visa, Discover, MasterCard or American Express. Bills may be paid in person, online, or by mail.

~~Drop for Non-payment Policy Deleted 2021-06-01~~

~~Students who have not paid their balance in full, set up a payment plan or have financial aid or a third party tuition/fee deferment may be dropped for nonpayment after close of business on the drop for nonpayment date.~~

~~If you are unable to make payment or payment arrangements, it is your responsibility to drop your classes by the End of Refund/Census period. Course census dates may vary. Contact Admissions with any questions. If classes are not dropped, you will be financially responsible for tuition and fees.~~

Refunds

All refunds (disbursements) from Financial Aid and other credits will be sent to the refund preference selected by the student. Each student will need to select a refund preference through Bank Mobile Disbursements, a technology solution, powered by BMTX, Inc. Visit this link for more information: <http://bankmobiledisbursements.com/refundchoicessso/>

PCC may refund 100 percent of your tuition and fees for a particular term if you officially drop during the first 15 percent of that term (by the census date). You can find refund deadlines at any registration station or at the Admissions and Records Office. You must authorize the drop in person by one of the following methods:

- Fill out an official drop form and submit it to the Admissions and Records Office, or
 - Go to the Pueblo Community College website and log in to the myPCC Portal.
- We will process your refund according to your selected refund preference with BankMobile Disbursements.

Basic Skills Assessment

How We Place You in Courses

We want you to be successful in achieving your educational goals. Therefore, you must have strong skills in reading, writing and/or math to succeed in college-level courses (courses at the 100 or 200 level). These skills are often listed as prerequisites (PRQ) or corequisites (CORQ) for college-level classes.

The PCC Basic Skills Policy is based upon these policies:

- Colorado Department of Higher Education's Statewide remedial education policy.
- Colorado Community College System Developmental Education Taskforce's 2013 redesign recommendations.
- Colorado Community College State Board policy BP 9-41.

Students attending PCC must adhere to the Basic Skills Policy and may need to take a placement test in mathematics, reading and writing before their first semester of enrollment. PCC uses this test to place students in appropriate college or basic skills courses. The test is not timed and is not pass/fail; it simply helps us establish which courses will be most appropriate for you.

Colorado's Remedial Education policy, which is based on *Title 23 - Postsecondary Education, State Universities and Colleges, Article 1 - Colorado Commission on Higher Education, § 23-1-113.3. Commission directive - basic skills courses*, requires the use of multiple measures in placing students into English and Math classes. Under this policy, the **primary evaluation** determines whether a student is college ready in English and mathematics and if the student will need remedial support or reassessment. Colorado accepts six assessment instruments for placement; institutions may choose to use any or all approved primary assessments, but must accept ACT or SAT. Accepted assessments include: ACT, SAT, Accuplacer, COMPASS, PARCC and Smarter Balanced. The **secondary evaluation** is institution-specific and incorporates the review of multiple measures to determine college readiness and course eligibility. The policy allows for institutional flexibility in determining the secondary evaluation. Under this policy, students' performance on standardized tests, high school achievement measures, advisor review and recommendation, and non-cognitive measures and essays are accepted as evidence of placement into college-level courses.

For the most up-to-date information about the Accuplacer Test, as well as prep materials, placement scores and fees, please visit the Testing Center's website.

Important Information Regarding Your Test Scores:

If you test into any basic skills courses, you must complete those courses within your first 30 credit hours of enrollment and meet with an academic advisor. If you do not register for basic skills courses within your first 30 hours, you will not be able to register for more classes until you meet with an academic advisor.

- If you have to take the Accuplacer, PCC requires that the test be completed before you meet with an academic advisor. All first-time undergraduate students must take the basic skills test or be exempt from assessment if they are seeking a degree (or are converting to degree-seeking status) or graduated from high school during the previous academic year.
- For certificate students, basic skills requirements will be identified in the college catalog.
- Students whose assessment scores do not meet college-level standards will need to meet with an advisor prior to registering in courses for the first time.
- Students who successfully complete the highest level of basic skills classes or college-level courses in math or English at a regionally accredited college or university are exempt from assessment in these subject areas only. Successful completion means a satisfactory "S" or a letter grade of "C" or better.
- High school students are exempt from assessment except when the scores are required as prerequisites for PCC or through specific agreements with districts/high schools.
- Students who have taken the ACT or SAT within the last five years may be exempt from the Accuplacer if their scores provide evidence of college readiness. Reading and English scores are valid for five years; math scores are valid for two years. Students should contact an academic advisor for required scores.

How to Take the Accuplacer

1. Students are encourage to schedule an appointment to take the Accuplacer. To make an appointment, contact your local campus Testing Center:

Location	Address	Phone Number
Pueblo Campus	900 W. Orman Ave., AB 134	719.549.3091
Fremont Campus	51320 W. Hwy. 50, L101	719.296.6116
Durango Site	2390 Main Avenue	970.385.2001
Southwest Mancos Campus	33057 Hwy. 160	970.564.6201

- The cost of the Accuplacer is a \$10 no matter how many sections you are being tested on.
- Testing is permitted twice a semester. If you wish to take the Accuplacer more than twice, you must seek written permission from the Chief Academic Officer or designee and show proof of progress in an approved tutorial program.

How to Prepare for the Accuplacer

Practice and Get Prepared for Test Day The Official Web-Based Study App

The ACCUPLACER web-based study app features practice tests in each test subject. It is accessible from most devices with internet access, and will help you become familiar with the content and format of the ACCUPLACER test questions.

- "Learn as you go" tests provide you with explanation of the correct or incorrect responses.
- Sample tests are similar to the real thing, so you'll know ahead of time what your experience will be like on test day.
- You can save your work at any time, and come back when it's convenient for you.

- You can review your score history to see what you're already doing well and what skills you should focus on improving.

ACCUPLACER STUDY GUIDES Website

Developmental Support Courses: Supplemental Academic Instruction (SAI)

PCC is committed to helping students with basic skills in reading, English and math. To ensure student success, the iGrad program provides students the ability to work on their basic skills by offering courses that are paired with 100-level courses.

PCC will provide written notice to all students whose Accuplacer scores do not meet the basic skills standards. This notice will include the state colleges offering basic skills courses, the course cost and the availability of the courses, including any online course. The official results of the tests are kept by the PCC Testing Center (Accuplacer, ACT, SAT and others) are valid for five years.

Please speak with an advisor if you have any questions about the basic skills test.

Course Placement Based on Assessment Test Scores or Exemption

ENGLISH EXEMPTION

- English 11 or higher English course within 2 years of completion with a grade of A/B & high school GPA of 3.0

CCR 092

Accuplacer - Sentence Skills <50 placement

CCR 094 or ENG 121

Accuplacer - Sentence Skills 70-94 placement

ENG 121 - English Composition I: GT-CO1

- Accuplacer - Sentence Skills ≥ 95 placement
- ACT - English 18 placement or SAT - Writing 460 placement
- AP - Language and Composition 3 exemption or IB-HL4 exemption

MATH EXEMPTION

- Placement in Career/Technical Math (MAT 107, MAT 103, MAT 108 or MAT 112)
 - 3.0 un-weighted high school GPA & A or B in Geometry & course within 18 months
- Placement in Career/Technical Math or Qualitative Math (MAT 120 or MAT 135)
 - 3.0 un-weighted high school GPA & A or B in Algebra II & course within 18 months
- Placement in Math 121
 - 3.0 un-weighted high school GPA & A or B in Pre-calculus & course within 18 months

MAT 050 - Quantitative Literacy

- Accuplacer – Arithmetic ≥ 40 OR 30-60 Elementary Algebra placement

MAT 055 - Algebraic Literacy

- Accuplacer - Elementary Algebra 60-84 placement

MAT 107 - Career Math or MAT 103 - Math for Clinical Calculations or MAT 108 - Technical Mathematics or MAT 112 - Financial Mathematics

- Accuplacer - Elementary Algebra ≥ 61 placement
- ACT - Math 19 placement or SAT - Math 500 placement

MAT 120 - Mathematics for the Liberal Arts: GT-MA1

- Accuplacer - Elementary Algebra ≥ 61 placement
- ACT - Math 19 placement or SAT - Math 500 placement
- IB - HL4 exemption

MAT 135 - Introduction to Statistics: GT-MA1

- Accuplacer - Elementary Algebra ≥ 61 placement
- ACT - Math 21 placement or SAT - Math 550 placement
- AP - 4 or 5 exemption

MAT 121 - College Algebra: GT-MA1

- Accuplacer - Elementary Algebra ≥ 85 placement
- ACT - Math 23 placement or SAT - Math 570 placement
- IB - HL4 exemption

MAT 122 - College Trigonometry: GT-MA1

- Accuplacer - CLM ≥ 63 placement
- ACT – Math 24 placement or SAT - Math 590 placement

MAT 125 - Survey of Calculus: GT-MA1

- Accuplacer - CLM ≥ 63 placement
- ACT - Math 25 placement or SAT - Math 590 placement
- AP - 4 or 5 exemption

MAT 155 - Integrated Math I/ MAT 156 - Integrated Math II

- Accuplacer - Elementary Algebra ≥ 61 placement
- ACT - Math 19 placement or SAT - Math 500 placement

MAT 201 - Calculus I: GT-MA1

- Accuplacer - CLM ≥ 103 placement
- ACT - Math 28 placement or SAT - Math 630 placement

Advising and Registration

Academic Advising

Academic Advising for New and Re-admitted Students

To truly succeed at PCC, all new or readmitted students enrolling in more than six credits must take an Accuplacer test (or have ACT/SAT scores on file with the Testing Center), attend a Getting Started Session and meet with an academic advisor before registering for classes. Here is what you can expect an advisor to do during a session:

- Review your academic program and test scores
- Assist you in developing an educational pathway plan
- Help you register for first-semester classes
- Assign a faculty advisor for guidance in future semesters
- Discuss and understand academic goals and how they relate to your career interests
- Help you transfer to a four-year college or university
- Refer you to the career center for career exploration, clarification and development

The Center for Academic Advising is also responsible for early advising programs, early grade check follow-up, attendance, working with financial aid suspension/probation students, basic skills advising, advising health professions students (until they transition to a health program), change of majors and advisor reassignments.

Advising for Continuing Students

Continuing students (generally students who have completed 15 or more credits) will have an assigned faculty advisor in their major who is familiar with that program's requirements. The Center for Academic Advising will provide the student his or her faculty advisor contact information. Students who want to change their faculty advisor must go to the Center for Academic Advising for approval. Advising is an ongoing process and students should consult regularly with their faculty advisor before registering for courses each semester. On the Fremont Campus, please meet with an academic advisor in the Go!Zone.

Undeclared Students

An undeclared student is one who has not declared a major and is not working toward a certificate or degree at PCC. Undeclared students generally are not eligible for financial aid. Students who are not sure what major best suits their goals will meet with a career counselor and be advised through the Center for Academic Advising until a major is selected. On the Fremont Campus, please meet with an academic advisor in the Go!Zone.

Registration

Registering for Courses

Once you are admitted to PCC and have met with an academic advisor, you may register for classes on campus or online through the myPCC Portal. (See registration information on the Portal.) You may not register if you owe money to PCC or any other Colorado Community College System school, are a male over the age of 18 not registered with the Selective Service, or if you are on academic suspension.

Required Signatures for:

Entry into closed classes – instructor and department chair
Unmet prerequisites – department chair
Late registration – instructor and department chair
Class time conflicts – both instructors
Registration in excess of 18 credit hours – division dean

Class Schedule Changes and Course Registration

You should secure your advisor's approval for all schedule changes.

The responsibility for changing your schedule is yours; no instructor or staff member can do it for you. To change your schedule, you must follow college regulations and obtain the appropriate signatures. You can change your schedule only during the schedule adjustment periods each semester.

If you change your schedule after submitting your graduation paperwork, you must notify your advisor so an updated graduation planning sheet can be submitted. If you do not notify your advisor of such changes, you may not be able to graduate on schedule.

Adding Courses

You may add regular courses only during the period specified on the myPCC Portal. You may add mini-courses or special-length courses up to the day the class starts. Registration after the census date is not permitted due to Colorado Opportunity Fund restrictions.

Dropping Courses

If you drop a regular course during the refund period listed on the Portal, you do not have to pay for the course. The dropped course will not appear on your permanent record. You may drop short courses, mini-courses or special-length courses without penalty before 15 percent of the course duration has passed.

You may add and drop courses in one of two ways:

- Visit any campus registration station. To add or drop a class in person, you must submit a signed schedule adjustment form.
- Log on to the myPCC Portal on PCC's website.

For add and drop deadlines for special-length courses, contact any registration station or the Admissions and Records offices, or refer to the class schedule/bill you received when you registered.

A student will be identified as a "no-show" and dropped from a course if he or she has not attended any class sessions between the start of the course and the census date or attended but did not participate in any academically related activity prior to the census. (For online courses, simply logging in is not "academically related activity.") Students will receive a full refund.

Students who encounter unusual or extenuating circumstances may request a late drop after census. Extenuating circumstances may be military activation or TDY orders, health reasons, job changes and/or a death in the family, to name a few. Normally, in these circumstances a tuition appeal process is started. The student completes the Tuition Appeal Form and submits it to the records clerk with documentation of the extenuating circumstances. The tuition appeals committee meets monthly to review the student appeals and has the authority to approve or deny the appeal. Students may re-appeal a denial with the registrar, but only within a calendar year of the term in question. The registrar, in consultation with the department chair and dean, may also approve late drops past census due to administrative errors, student health or hospitalization situations with documentation.

For a statement about PCC's refund policy, see the Tuition and Fees section of the catalog or the current PCC Schedule of Classes.

Withdrawal Policy

PCC has instituted the following policy on class withdrawals: It is the **student's** responsibility to initiate all withdrawals – from a course or the college – after meeting with their instructor. After that meeting, you should contact the Financial Aid office and begin the withdrawal process electronically or go to the college Go!Zone for assistance.

Withdrawing from Courses

Following the end of the refund period, you may withdraw from any or all of your courses and receive a grade of "W" if you withdraw before 80 percent of the course duration has passed. You may not withdraw from a course during the last 20 percent of the course duration. When you withdraw from a course, you must still pay tuition and fees. It is your responsibility to withdraw yourself from courses; instructors will not withdraw you.

- You may withdraw from individual courses through the myPCC Portal. It is recommended you meet with your instructor prior to withdrawing.
- To withdraw from all courses, you must initiate the official withdrawal form in the Go!Zone Enrollment Office. Telephone requests cannot be honored.
- In emergency cases, write to the Records Office by certified mail to Pueblo Community College, 900 W. Orman Ave., Pueblo, CO 81004-1499, indicating the reason for withdrawal and requesting this matter be completed by mail. You may also email the Registrar's inbox from your college-issued student email account to request a withdrawal.

Military Withdrawal

If you are a current member of the armed forces and your academic work is interrupted by TDY or other military obligations, we will make every effort to accommodate you. When you present valid military orders to the Records Office, you may choose one of the following options:

- Challenge a course by taking the final examination any time after midterm.
- Receive an incomplete grade for the term. Please see the Incomplete Grades section of the catalog.
- Receive a refund of tuition and fees (if you select this option, you must contact the Financial Aid Office prior to departure).

Students who are activated, voluntarily or involuntarily, are eligible to be readmitted to PCC with the same academic status and program as when they last attended. This applies to active duty in the armed forces, including the National Guard or Reserve, for a period of more than 30 days under a call or order to active duty of more than 30 days.

Degree requirements in effect at the time of each service member's enrollment will remain in effect for a period of at least one year beyond the program's standard length, provided the service member is in good academic standing and has been continuously enrolled or received an approved academic leave of absence. Adjustments to degree requirements may be made as a result of formal changes to academic policy determined by the institution or department.

In instances when courses or programs are no longer available or changes have been mandated by a state or accrediting body, the institution will work with affected service members to identify substitutions that would not hinder the student from graduating in a timely manner.

Course Cancellation for Low Enrollment

PCC may cancel or alter programs or course offerings when enrollments are too low. In such cases, we will make every effort to notify you as soon as possible to offer course alternatives.

Course Load

Normal course load is defined as follows:

- Full-length semester – 12-15 credits
- Eight-week term – 6 credits

You must get written permission from your dean to register for an overload (more than 18 credits). To be eligible to take an overload, you must have a 3.000 cumulative grade point average unless admitted into a program with defined GPA and course load requirements.

Course Prerequisites and Corequisites (Also Known as Concurrent Prerequisites)

PCC has two kinds of enforceable entry requirements for particular courses:

- Prerequisites – Prerequisites are requirements that must be met before you can enroll in a certain course.
- Corequisites – These are classes that should be taken at the same time. In most cases, you can register for one of the courses if you have already successfully completed the corequisite.

Course Numbering

Courses are numbered to indicate level of instruction. Freshman level courses are in the 100s and sophomore level courses are in the 200s. Courses numbered 300-400 level apply to BAS programs and students may not enroll without the department chair's permission.

Academic Regulations

Academic Integrity and Behavioral Expectations

PCC expects students to adhere to standards of conduct that promote academic and personal integrity, civility and cooperation. The College Student Code of Conduct is found in the PCC Student Handbook. PCC expects that you have read and will adhere to PCC regulations, comply with the laws of the local community, and take responsibility for your conduct.

PCC is committed to providing you a superior educational experience. Because academic integrity is a critical component of this experience, we expect you to maintain the highest standards of integrity while you are a student here. Academic integrity is defined by the International Center for Academic integrity as the adherence to five fundamental values – honesty, trust, fairness, respect and responsibility. PCC recognizes that it takes courage to challenge others and to live by these values.

Failure to follow the standards of academic integrity will result in acts of academic misconduct, which are defined as:

Plagiarizing, cheating or committing any other form of academic misconduct including, but not limited to, unauthorized collaboration, falsification of information and/or helping someone else violate reasonable standards of academic behavior. Students who engage in any type of academic misconduct are subject to both academic consequences as determined by the instructor and to disciplinary action as outlined in the PCC Student Handbook.

No-show/Drop/Withdrawal Definitions and Effects

	Definition	Initiated by	Is the student charged?	Does this show on Transcript?	Effect on financial aid	Effect on GPA
No Show	Students will be dropped as a no-show if they do not attend any class sessions or submit any substantial work between the start of the course and the census date. Students should be reported as a no-show on or before the census date for the course.	Faculty and Instructors	No	No	If a student is not dropped as a no-show on or before the census date for a course and is dropped as a no-show at a later time, the student could receive a financial aid disbursement for which they are not eligible. When late drops occur, a student's financial aid must be adjusted and the error could result in the student owing thousands of dollars to PCC.	None
Drop	Students can drop some or all of their courses prior to the census date for the course. Special length courses have different census dates. Please check the portal on the faculty tab and Important Dates	Student	No	No	Same effect as a No show	None
Withdrawal	A student may withdraw from any or all of their courses and receive a grade of "W". They must withdraw by the last day to withdraw of their course. Special length courses have	Student	Yes	Yes, as a "W"	Students are held financially liable for the withdrawn course. Does count as credits attempted; financial aid does cover the cost of a withdrawn course	None Does count as credits attempted

	different withdrawal dates. Please check the portal on the faculty tab and Important Dates					
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*Students who stop attending class and do not drop or withdraw themselves will receive the grade that they earned at the end of the class. If the student receives a failing grade, the faculty/instructor must report the last date of attendance when entering the grade.

Drop for no-show

Students will be dropped as a no-show if they do not attend any class sessions or attend once but do not complete any academically related activity between the start of the course and the census date.

- Students should be reported as a no-show on or before the census date for the course.

Withdrawal

A student may withdraw from any or all of their courses and receive a grade of "W". Students are held financially liable for the courses from which they withdraw, and the course withdrawal is recorded on their transcripts. It is now the student's responsibility to withdraw themselves from their courses – instructors will no longer withdraw students due to poor attendance; however, speak with the instructor before withdrawing from any class. If students stop attending classes and do withdraw themselves, instructors should assign the students the grades they earned. If the grade is a failing grade, the instructor should report the last date of attendance.

Drop

Students can drop some or all of their courses prior to the census date for the course. If a student drops a course prior to its census date, the student is not charged for the course and the course does not appear on their transcripts. Consult with the instructor before dropping from any class.

If students stop attending their courses and do not drop themselves, instructors should assign the student the grade they earned. If a student receives a failing grade, the instructor needs to report the last date of attendance when entering the grade. A student should never be assigned a failing grade if they failed to attend a course and should have been dropped as a no-show. **Students cannot receive financial aid for courses where they have not established attendance.**

Impacts to Student's Financial Aid

- If a student is not dropped as a no-show on or before the census date for a course and is dropped as a no show at a later time, the student could receive a financial aid disbursement they are not eligible for. When late drops occur, a student's financial aid must be adjusted and the error could result in the student owing thousands of dollars to PCC.

Grading System

At the end of each semester, a student may access their grades or order a transcript online.

Letter Grades

At PCC, grades are expressed in letters which are equated to points used in calculating the cumulative grade point average. To calculate a grade point average (GPA), divide the total number of quality points by the total number of credit hours (the points associated with A, B, C, D and F grades). A "P" grade indicates that the quality of student work in the course is equivalent to "C" or better. A "P" grade will count in attempted and earned hours, but will not carry any quality points and will not be included in the calculation of GPA. Before a student registers into a class, they may select a pass/fail grading scheme, please contact the registrar's office to discuss this option. "P" grades may not be applied to any course in the Colorado Guaranteed Transfer Program for General Education (GT Pathways). With the exception of Physical Education courses, no course taken for a P/F grade may be applied to the AA or AS degree, and in that case, no more than two (2) credits may be applied to the AA or AS degree.

An "F" grade in the Pass/Fail mode indicates that the quality of student work in the course is equivalent to "Failure" in letter grade mode. An "F" grade may not be applied to any degree or certificate requirement.

Letter Grade	Quality Points
A (Excellent or Superior)	4
B (Good)	3
C (Average)	2
D (Deficient)	1
F (Failure)	0
P in P/F mode (Pass)	0
F in P/F mode (Fail)	0
S/A, S/B or S/C - Satisfactory Grade designation used only for Developmental Courses	
U/D or U/F - Unsatisfactory Grade designation used only for Developmental Courses	
I (Incomplete) - designation used to show that the coursework is not complete and an extension has been granted	
AU - Grade designation used for courses that are audited	
W - Designation used when a student withdraws from a class	

S/A, S/B, S/C

Satisfactory grades are assigned only in developmental courses. These will not be calculated for the grade point average but the credits earned in developmental courses will count toward the earned and attempted credits. The grades

received in developmental courses will not be used in calculating academic honors like the President's List, Vice President's List and Dean's List.

U/D, U/F

Unsatisfactory grades are assigned only in developmental courses. These will not be calculated for the grade point average but the credits earned in developmental courses will count toward earned and attempted credits. The grades received in developmental courses will not be used in calculating academic honors like the President's List, Vice President's List and the Dean's list.

Incomplete Grades

A grade of Incomplete ("I") is a temporary grade in a regular course. It indicates the following:

- Due to circumstances beyond the student's control, you have not completed all course requirements but you have completed at least 75 percent of the coursework.
- You have a satisfactory record ("C" or better) in the work you have completed.
- You agree to complete all requirements for removing the incomplete grade, according to the description of requirements on the Incomplete Grade Agreement Form, within the next full-length semester after the class is offered (summer excluded).
- If you fail to complete the course work, a grade of "F" will be automatically posted to your transcript at the end of the next full-length semester.

It is your responsibility to initiate the request for an "I" grade with your instructor. If circumstances beyond your control prevent you from completing any coursework by the end of the term, you must immediately inform your instructor of those circumstances. Your instructor will determine whether you should be awarded additional time beyond the end of the semester to complete your coursework. If you and your instructor cannot reach a mutual agreement concerning an "I," contact your department chair and then, if no agreement is reached, the instructional dean.

Before the instructor can assign an "I," the following conditions must be met:

1. You must present to your instructor the documentation of circumstances justifying an "I."
2. You and your instructor must complete and sign an Incomplete Grade Agreement provided by your instructor. (The department chair will send you a copy of the Incomplete Grade Agreement.)
3. Your instructor must record an "I" grade on the final grade roster at the end of the semester. If you receive an "I," do not re-register for the course and do not pay additional tuition and fees. Instead, make arrangements with your instructor to complete the requirements of the class.

If you are in the military or emergency management and are required to go on temporary duty status before you complete 75 percent of a course, contact your instructor to arrange special consideration for an "I" grade. For special consideration, you must provide documentation of your official temporary duty orders. Your instructional dean must approve the special consideration.

Audit Grade

Please see Part-time/Full-time/Auditor Status in the Applying for Admissions section.

Grade Changes

Once a final grade is entered, it cannot be changed unless your instructor completes a Grade Change Form and has it signed by the department chair.

It is your responsibility to request a grade change from your instructor if you believe one is justified. Normally, we process grade changes during the following term. After one calendar year, the college will not approve a change of grade. "AU" grades may not be changed.

Final Examinations

Final examinations must be taken during a regularly scheduled class period in the last week of class unless approved by the appropriate dean.

Course Repeats

All college-level courses may be repeated, with the following limitations:

The following guideline applies to all students taking for-credit courses.

- Students will be limited in the number of times that they can take the same course.
- Certain courses are exempt from the repeat course procedure due to the nature/offering of the course.
- If a student has taken a course and attempts to register for the course a second time, the student will receive an automated notification of possible financial aid implications, available support services and how to access those services.
- If a student has taken a course twice and attempts to register for the course a third time, the student will not be able to register for that particular course until an action plan is created and approval granted by the college-appointed advisor. Please note that the student is able to register for other courses without needing an action plan or approval as per college rules and regulations.
- If the college advisor does not feel that the registration is warranted, the student may appeal through the college's designated appeal policy.
- If a student has taken a course three times and wants to register for the course a fourth time, the student must appeal through the college's designated appeal policy.

Each registration for the course and each grade received will be listed on the transcript. On the transcript a notation will follow the course, indicating that the course was repeated and designating whether it will be included in the GPA. The highest grade will be used in the GPA calculation. There will be no limitations on course grades that are eligible for repeat. All credit hours earned for initial and repeated courses will be deducted from a student's remaining COF stipend-eligible hours.

In the event that the same grade is earned two or more times for a repeated course, the most recent instance of the duplicate grade will be included in the term and cumulative GPA. All other duplicate grades will be excluded from the term and cumulative GPA.

Repeated courses may be applied only one time to a certificate or degree, except for variable credit courses and designated courses that may be repeated for professional or personal development. Developmental courses are eligible to be repeated. All developmental courses will appear on the transcript.

For financial aid purposes, students may take course once and repeat it once but may not receive aid for subsequent repeats.

Academic Probation & Suspension

PCC wants you to succeed and encourages you to make responsible academic choices. Therefore, your course load will be appropriately limited as defined in the course load policy (found in the Advising and Registration section of this

catalog). In addition, you must maintain at least a 2.000 Cumulative Grade Point Average (CGPA) to remain in good standing. **A student's academic standing at one college will impact academic standing at another CCCS college.**

Academic Standings:

Initial Standing

Student has attempted **fewer** than 9 cumulative credit hours with a CGPA => 2.000 for all classes attempted.

Good Standing

Student has attempted **at least** 9 cumulative credit hours and has a CGPA => 2.000 for all classes attempted.

If your CGPA drops below a 2.000, PCC will place you in one of the following categories to encourage you to improve:

Academic Alert – You have a CGPA lower than 2.000 after attempting 9 credit hours or fewer. You may continue to enroll in classes after you meet with your academic advisor to discuss a plan for academic improvement.

Academic Probation – You have a CGPA lower than 2.000 after completing 9 or more credits in residence at PCC. You may continue to enroll in classes after you meet with your academic advisor to discuss a plan for academic improvement and provided you earn higher than a 2.000 Term GPA (TGPA) in the next full semester.

Continuing Academic Probation – You have a CGPA lower than 2.000 for all courses completed in residence and the last term GPA is 2.000 or higher.

Academic Suspension

If a student on academic probation earns a TGPA of less than 2.000 for all classes attempted, the student will be suspended and will not be allowed to enroll at any CCCS college for the next term, excluding summer term (as summer term may not be used as a "suspension term").

Suspension Rules

- Summer term may **not** be used as a "suspension term."
- Summer term may be used to improve the GPA. If a student wishes to enroll for summer term after being suspended, the student will need to follow his or her home institution's process.
- Initial suspension is for one term, excluding summer term.
- A second suspension is for two terms, excluding summer term.
- If a student who has served the suspension time for initial suspension or second suspension wishes to return, he or she will be allowed to re-enroll only after meeting with an academic advisor at the CCCS college the student wishes to attend. The student will be placed on academic probation.
- A third suspension is for two full years or four academic terms, excluding summers.
- If a student who has served the third suspension time of two years wishes to return, the student must meet with an advisor from the CCCS college the student wishes to attend in order to get the suspension hold removed.

Note: Academic probation/suspension is different from financial aid warning/probation/ineligibility. Please see the Financial Aid section for information about that topic.

Academic Appeal

You may appeal an academic decision only if you believe it was based on illegal discrimination or arbitrary and capricious actions. For more information about illegal discrimination, refer to the Grievance Process, which you can find online or in hard-copy form in the Office of the Chief Student Services Officer. For information about arbitrary and capricious actions, contact the Office of the Chief Student Services Officer.

Credit Completion Progress

Recognizing the value of credit completion for all students with regard to retention, transfer and credential attainment, PCC has established the following practice and procedures for measuring and notifying students of their credit completion progress. This procedure is intended to be informational and helpful but also establishes clear standards of credit completion progress that must be met and maintained in order to be a successful student at PCC.

Credit Completion Progress:

- All credit bearing classes (developmental and college level) will be used to calculate the percentage of attempted credits passed. This includes summer term courses.
- Only courses taken in residence will be used for this calculation. "In residence" means taken at PCC. Courses taken elsewhere and transferred in do not apply. The credit completion rate for this procedure will not necessarily match those used for financial aid purposes or athletic eligibility.
- Grades considered to be passing when computing the percentage of attempted credits passed are as follows: A, B, C, D, S/A, S/B, S/C and S.
- Grades considered to be failing when computing the percentage of attempted credits passed are as follows: I, F, U/D, U/F, W and AW.
- Course Completion Rate is calculated by dividing the total attempted credits by the number of credits successfully completed as defined above.

Practice Standards:

Initial Standing – Student has attempted fewer than nine (9) cumulative credit hours will not be assessed for credit completion.

Good Standing – Student has attempted at least nine (9) cumulative credit hours and has a cumulative course completion rate of at least 50 percent.

Warning 1 – Student has attempted at least nine (9) cumulative credit hours and has a cumulative course completion rate of less than 50 percent for the first time.

Warning 2 – Student has attempted at least nine (9) cumulative credit hours and has a cumulative course completion rate of less than 50 percent for the second time.

Warning (Continued) – If a student on Credit Completion Probation passes 50 percent or more of his or her attempted term credits but fails to raise their cumulative completion rate to 50 percent, they will be allowed to continue the next term but will remain on Credit Completion Probation.

Warning 3 – Student has attempted **at least** nine (9) cumulative credit hours and has a cumulative course completion rate of less than 50 percent for the third time.

Warning Rules:

- Students on Warning 1 will receive a notice regarding their credit completion status and will be given information on resources, best practices, etc.
- Students on Warning 2 will receive a notice regarding their credit completion status and will have a credit completion hold (which will impact registration) placed on their student account at their home college. The student will not be able to make any changes to their student account until they meet with an advisor.
- Students on Warning 3 will receive a notice regarding their credit completion status and will have a credit completion hold (which will impact registration) placed on their student account at their home college. The student will not be able to make any changes to their student account until they meet with an advisor. **The college reserves the right to limit the number of credit hours that the student may take when a student is on Warning 3 status.**

Academic Renewal

Academic Renewal is a program through which PCC can exclude previously earned "below average" grades from your cumulative GPA. Through this program, you have another chance to succeed without prior performance holding you back. You must meet the following six (6) conditions for Academic Renewal:

- A maximum of 30 hours can be excluded from the GPA.
- Courses and grades approved for Academic Renewal remain on the transcript but are excluded from the GPA calculations.
- Academic Renewal applies to "D" and "F" grades only.
- In order to apply for Academic Renewal, students cannot have been enrolled at PCC for at least two (2) calendar years from the last term being considered for Academic Renewal.
- Students must be enrolled and have completed at least six (6) hours with a 2.000 term GPA to be awarded Academic Renewal. For a Reverse Transfer Degree only, the student may fulfill this requirement by demonstrating enrollment in at least six (6) credit hours with a 2.0 term GPA during last semester of attendance at the four-year institution.
- Students can apply for Academic Renewal only once.
- The decision is not reversible.
- Academic renewals will be processed at the end of the term in which the student submitted the renewal.

myPCC eLearning

Our myPCC eLearning courses are either fully online or split between in-class and online, depending on the class. These courses allow you to use a computer at a place and time convenient for you to access course content, participate in threaded discussions, and respond to assignments posted online. Your instructor may post examinations online or ask that you take them at the school. PCC's online and hybrid courses are developed and taught by faculty to ensure that students have the information, academic experiences and instructional time necessary to meet course objectives.

PCC uses existing academic structures in the development of distance education courses and curricula. The college follows the Colorado state-mandated common course descriptions, competencies and outlines for any course offered, regardless of the method of delivery. An online course syllabus reflects the content and learning outcomes of the same face-to-face course. For every hour of credit, students must engage in a minimum of 12.5 hours of instructional time (15 week semester = 50 minutes per week, per credit). Students should have a computer with an Internet connection at home. However, all PCC campuses provide access to computers at various times (check your campus for lab days and times). Please refer to the catalog for information on prerequisites. Contact the course instructor or refer to the course syllabus for course requirements.

myPCC eLearning supports two options for online course delivery:

- Online courses (Internet based)
- Hybrid courses

Online Courses

1. PCC Online courses are developed and taught by PCC instructors. Any requirements for face-to-face meetings for online classes are limited to orientations, internships, specialized laboratory work, proficiency check-offs or final industry certifications. All coursework is done via the Internet.
2. **Colorado Community Colleges Online** (CCCOonline) is a shared educational resource of the Colorado Community College System. These courses are taught by instructors of the Colorado Community College System. All coursework is done via the Internet.

Hybrid Courses

Hybrid courses are a combination of online and classroom instruction. In a hybrid course, a portion of the seat time is spent in the classroom and the remainder of the class is conducted online.

Online Tuition and Related Costs

Tuition rates for online courses are different from those of traditional courses. Look up the tuition costs on the Tuition & Fees page. Some courses have lab and special course costs. View the Tuition & Fees page and click on the **Online Courses Fees tab** to see the list of online courses and their associated fees.

Alternative Methods of Instruction

Independent Study, Cooperative Experience, Internship and Occupational Experience

Some PCC programs offer independent study, cooperative experience (COOP), internship or occupational experience courses. Internship and occupational experience courses are usually offered off campus; however, these courses maintain the same standards and provide the same quality of education as courses taken on campus.

Independent study, COOP, internship and occupational experience courses must meet the following conditions:

1. The courses form part of an approved curriculum which is required for graduation.
2. The assigned credit value and contact time in class are in compliance with state guidelines and are the same as on-campus courses.
3. The courses are graded with the same criteria used for on-campus courses.
4. The courses have appropriate assignments with an outlined course of study.
5. While student supervision may be conducted by job-site officials, the course of study is supervised and controlled by PCC and not by those officials.
6. The course requires that there will be regular communication between the student and instructor.

Contact an academic advisor if you are interested in this form of instruction.

Graduation Requirements

General Graduation Requirements

Associate Degree Requirements

All candidates for Associate degrees must meet the following requirements:

- Complete a minimum of 60 semester hours of credit
- Complete all program requirements for the Associate degree
- Satisfactorily complete at least 25 percent of the Associate degree requirements at PCC
- Online courses with registrations through the home college will be included in residency hours
- Complete all major and degree-related courses with a grade of "C" or better
- Earn a cumulative grade point average of 2.000
- Be classified as a degree-seeking student
- **Your diploma and final transcript will not be issued until all PCC financial obligations are met**

Certificate Requirements

All candidates for certificates must meet the following requirements:

- At least 25 percent of credits must be completed in residence
- Complete all major and certificate-related courses with a grade of "C" or better
- Earn a GPA of 2.000 or higher for all certificate courses
- Be classified as a certificate-seeking student
- **Your diploma and final transcript will not be issued until all PCC financial obligations are met.**

Multiple Academic Degrees

To earn multiple academic degrees, Associate of Arts, Associate of Science or Associate of General Studies at PCC, a student must complete a minimum of an additional 15 credits of coursework which have not been applied to any previously awarded degree. The additional coursework for each successive degree must be above and beyond the original 60 credits required for the first academic degree. These 15 credit hours must all apply toward the additional degree and must be completed through PCC. This includes the degrees with designation.

Graduation Honors

Graduation honors are awarded to students who complete the requirements for an Associate Degree and earn a 3.5 or better cumulative grade point average. Only college-level courses completed at the institution will be included in the GPA calculation. Students must earn at least 15 graded credits at PCC. The three (3) levels of recognition are defined as follows and will be posted on the student's transcript:

- Summa cum laude ("with highest honor")
- Magna cum laude ("with great honor")
- 4.00 cumulative GPA
- 3.750 to 3.999 cumulative GPA

- Cum laude ("with honor")
- 3.500 to 3.749 cumulative GPA

Honors recognition at the commencement ceremony is based on the GPA through the prior **fall** semester.

Academic Recognition

If you are enrolled in 12 or more graded credit hours and earn a term grade point average of 3.500 or higher, you will be placed on one of the following lists. Graded credits are those classes set-up with the A-F grade mode. Classes that are graded with Pass/Fail grade mode are not counted in the 12 or more graded credits requirement. Selection for this honor will be recorded on your permanent transcript.

- President's List
- Vice President's List
- Dean's List
- 4.000 Term GPA
- 3.750 to 3.999 Term GPA
- 3.500 to 3.749 Term GPA

Preparing for Graduation

To be considered a candidate for graduation, you must complete the following steps by the deadline date of the semester you plan to graduate. Dates are posted on the myPCC Portal.

- Verify that your major and your option or area of concentration are listed correctly as the Current Academic Program on your transcript. If it is not correct, you must complete a Change of Major form available on the myPCC Portal.
- Verify that transfer and prior learning credit have been posted on your transcript.
- Verify with your faculty advisor or department chair that previously requested course substitutions and/or waivers have been approved.
- Schedule an appointment with your faculty advisor or department chair to complete a Graduation Planning Sheet and Program Curriculum Sheet or Degree Check audit. These important documents record the courses you have completed and indicate your plan to complete any remaining courses. It should be finalized no later than the deadline date for the semester you plan to graduate. **If you submit your planning sheet after the deadline, we will place it in the next term's graduation file.**
- **Your diploma and final transcript will not be issued until all PCC financial obligations are met.**

Once you have completed the Graduation Planning Sheet, it is your responsibility to notify your faculty advisor or department chair immediately of any changes to your plan. You and your faculty advisor or department chair will complete the Request for Modification Form and submit it to the Records Office.

You may complete your graduation requirements any time during a term; however, you should anticipate at least a six- to eight-week delay following the submission of final grades before we verify your graduation status, post it on your transcript, and mail your diploma. The officially recognized graduation date posted on your transcript is the last day of the term as listed in the PCC Academic Calendar.

PCC has one formal graduation ceremony for all three terms. This ceremony is held once each year in the spring semester. Please refer to the Commencement section below for more information.

Catalog Requirements

You may graduate using the requirements of this catalog; you may also choose to graduate under the requirements of the catalog with which you started your degree. You may also choose to graduate under the requirements of a later catalog provided you are enrolled for college credit each semester on a continuous basis in the same program (summer sessions excluded), and provided you complete your graduation requirements within a period of five years. If you

change your major, you must follow the requirements of the catalog in effect at the time of the change. Any exceptions to this policy must have prior approval from the appropriate academic dean.

Commencement

PCC holds its commencement ceremony once each year at the end of spring semester. You are eligible to participate in commencement if you:

- are a graduation candidate in a degree program
- are a graduation candidate in a certificate program that requires, at minimum, 16 semester credit hours
- are a graduation candidate for the spring semester
- graduated the preceding fall semester
- will be graduating at the end of the following summer session

PCC surveys graduates annually to ask for feedback about their experiences. We take the input very seriously, and our graduates' opinions are important to us. Not only can they help us to improve and refine our programs and services, they can also benefit current and future students. Topics include questions including but not limited to program of study, courses, current or future career plans, and ability to transfer successfully. The results are used to improve the academic programs and services that we offer for the next class of PCC graduates.

Services for Students

Services for students are available at PCC's Fremont, PCC Southwest, Durango, and Pueblo campuses; contact each campus directly. To find out if the services listed in this section exist at all campuses, contact the Go!Zone (Enrollment Services Office).

Bookstore

The PCC Bookstore serves PCC students, faculty, staff and the community. We sell all required textbooks and supplies, as well as general interest art, office and school supplies, calculators, greeting cards, computers, clothing and gift items. The bookstore conducts a used book buy-back at least once during each semester. Students can sell back their books year-round on our website. In order to serve our students, we offer both new and used textbook rentals as well as new and used textbooks for purchase. The Pueblo campus has a physical store open year round. The Fremont Campus has a store that is open at the beginning of each semester. Southwest students are invited to purchase from our website with direct ship to their homes. Students from all campuses can purchase all Textbooks, supplies and PCC imprinted items online.

Career and Transfer Services

Career and transfer services are offered to students and alumni through the Career and Transfer Center located in the Go!Zone, in the Student Center. Services include:

- Career exploration and planning
- Job posting and industry job fairs
- Employer networking and information sessions
- Resume and cover letter seminars
- Interview skills workshops
- Full-service career management system

- Four-year college and university information and visitations
Call 719.549.3036 for information.

Children First: Child Care Referral Service

If you need child care, Children First can provide free customized referrals to students, faculty and staff for licensed child care providers or programs that will meet your unique needs. Stop by our office in AB-174, call 1.877.338.2273 or check online. We can also help find trainings for parents or child care providers.

Children First also assists Early Childhood (EC) professionals by providing opportunities for continuous program enhancement through the support of the new Colorado Shines Quality Rating and Improvement System, and by scheduling trainings for EC professionals to meet licensing requirements and Professional Development Information System (PDIS) requirements to further their personal professional development.

Children First maintains a list of community resources in southeastern Colorado. Stop by our office to find out more. In addition to our Pueblo campus office, we have a satellite office at the PCC Fremont Campus. For more information, call 719.549.3411 in Pueblo or 719.296.6118 in Cañon City.

Customer Solutions Center/Downtown Studio

The Customer Solutions Center is a phone-based help center where prospective and current students can get answers regarding enrollment and services such as financial aid. The CSC can be reached by calling 719.549.3200. We are located in the Downtown Studio on the corner of First Street and Santa Fe Avenue in Pueblo. Staff members provide one-on-one enrollment services to assist veterans, displaced and low-wage earners with the transition to college life.

Dining Services

The Pueblo Joe's cafe is located in the lower level of the Student Center. Pueblo Joe's offers breakfast specials along with pastries and beverages. The lunch menu includes specials, deli sandwiches, grill items, healthy grab n' go items and a build-your-own burrito and salad bar. The PCC Culinary Arts Program offers lunch in the GPA Dining Room next to the cafe from 11:30 a.m. to 1:00 p.m. Tuesday through Friday during fall and spring semesters. During the fall and spring semesters, gourmet dinners are served in the GPA Dining Room on Wednesday evenings. Pueblo Joe's and the GPA Dining Room area are open to students, faculty, staff and the general public. The college also provides a complete catering service for large and small events scheduled at PCC.

Health Clinic

Pueblo Campus: PCC has partnered with the Pueblo Community Health Center to provide Healthcare services on site for students, staff, family members, and community members. Services include, but are not limited to; general office visits, physical exams, well-women exams & birth control, minor injury treatment, immunizations, prescriptions, referrals, and tobacco cessation. This clinic will bill your insurance. We can assist with benefits determination including Medicaid or PCHC's sliding fee scale for those who qualify. Please call 719.549.3315 to schedule appointment.

Fremont Campus: Students enrolled in six (6) or more semester credit hours can utilize the health center at the Fremont Campus at no charge. Students taking less than six (6) semester credits can be seen for a \$30 office visit fee. Dr. Arguello is available four hours weekly during fall and spring semesters. Services include, but are not limited to; general office visits, physical exams, minor injury treatment, immunizations, prescriptions, referrals, and tobacco cessation. Reduced fees available for vaccinations, labs, and other miscellaneous testing. The clinic is available for

faculty, staff, and immediate family members of students and PCC employees for a \$30 office visit fee. To schedule an appointment, please call 719.296.6107.

PCC Southwest Campus: Students enrolled in six (6) or more semester credit hours can utilize the health center at the PCC Southwest Campus. Students taking less than (6) semester credits can be seen for a \$30 office visit fee. Allie Enoch, NP is available eight hours monthly during fall and spring semesters. Services include, but are not limited to; general office visits, physical exams, minor injury treatment, immunizations, prescriptions, referrals and tobacco cessation. Clinic is available for faculty, staff, and immediate family members of students and PCC employees for a \$30 office visit fee. To schedule an appointment, please call 970.564.6231.

Learning Center

The Pueblo, Fremont, Southwest campus each have a Learning Center and each center offers various services. You may inquire about these services on your campus.

Computerized learning assistance is available at all campuses. PrepSTEP is an interactive computerized tutorial and testing program that offers support for a wide variety of subjects. PrepSTEP also offers career-seeking services, including interest inventories, career information, resume writing and interview skills. This program is Internet based and available any time. For more information, contact the Learning Center on your campus.

The Learning Center provides the following services:

Disability Resources (AB 120)

If you have a disability (including issues related to post-traumatic stress and/or temporary disabilities such as a broken arm), you may qualify for accommodations. These accommodations include, but are not limited to, note-taking services, alternative text formats and sign language interpreting services. These services are available to students at all campuses.

The Disability Resources Center also offers courses in assistive technology. CIS 101, CIS 102, CIS 104 and CIS 107 are small, self-paced courses that teach you how to use assistive technology such as voice recognition programs, screen readers and other adaptive devices. You also have access to the assistive technology classroom during open lab hours. (Note: Lab hours may vary from semester to semester.)

Student Computer Access (AB 042)

We have laptop computers that students may use to do required academic work. Our state-of-the-art computers have many software programs used in academic classrooms, as well as Internet service you may use to conduct academic research. Use of laptops requires a photo ID and laptops must remain in the Learning Center.

Testing Center (AB 134)

The Testing Center offers a distraction free environment for academic, placement, typing, high stakes, and professional exams. Our services include professional exams through PearsonVUE, Kryterion, Castle, IQT, ISO, MSSC, Prometric, Comira, Prior Learning Assessments and Credit by exam such as CLEP and DSST. The Testing Center at PCC is here to serve our students as well as the larger Southern Colorado Community. All services provided in the Testing Center require a valid state issued photo ID.

Tutoring (AB 056)

Tutorial Services offers free tutoring assistance to all students enrolled at PCC. Each campus offers different options. Students should contact their campus to inquire about what tutoring is offered for various courses.

At the Pueblo campus, there is a drop-in tutoring option known as Pro Tutoring – Writing Pro, Math Pro, Science Pro and IT/Computer Pro. Pro Tutoring services are available Monday through Friday during the Learning Center's normal operating hours. Pro Tutoring schedules are posted on the college website under Tutoring. Hard copy schedules are available in the Learning Center.

Tutoring for other courses may be requested by submitting a tutor request form in the Learning Center.

Limited online tutoring through Brainfuse is also available through the Desire2Learn (D2L) program. Brainfuse is free to all PCC students at all campuses.

Library

PCC's Pueblo and Fremont campuses have academic libraries providing materials and services to students, faculty and community members. The library collections contain more than 55,000 books, periodicals and nonprint materials, as well as digital resources such as online databases and eBooks. At the PCC Pueblo campus, the library is located in the Mike Davis Academic Building and is designed to provide several learning support services including private study rooms, laptops for use inside and out of the library, reference materials and research assistance from library professionals.

Currently enrolled students and PCC staff members automatically have a library account and their PCC ID card is used as a library card. Patrons checking out materials agree to the PCC Library Borrower's Agreement, which can be found on the PCC Library web page. Access to the library's online databases is permitted with the use of the student or staff member's S number. The Pueblo Campus Library provides the following services:

Features

The Pueblo Campus Library provides laptop computers and accessories, eReaders, digital recorders, scanners, laser printers, a photocopier and open and private study areas. One ADA-compliant computer work station is provided for wheelchair-bound patrons and some adaptive equipment is available upon request.

Library Catalog

Access to the PCC Library Catalog is made available through the PCC Library webpage from the Start Your Research Here menu option. Library materials are shared between the Pueblo and Fremont campus libraries and can be requested by students and staff at any PCC or Southwest campus.

Online Resources

Nearly fifty online resources are available to PCC students and staff, including library databases with full-text articles, streaming media and an eBook collection of more than 20,000 titles. Access the databases on any campus computer or off-campus through the PCC Library home page using your S number. The PCC Library also provides information literacy and research instruction via the PCC Library Classroom in the D2L learning management system.

Reference

Reference assistance is available for developing research strategies and identifying resources for class assignments or personal interests. Individual and group orientations are available to students and instructors. Time with a reference librarian can be scheduled by phone, email or the Book a Librarian option on the PCC Library webpage.

Course Reserves

Course reserves are meant to be utilized inside the library. This collection includes books and study materials provided by instructors to supplement course textbooks, as well as writing style manuals and other academic aids. Students may inquire at the library's service desk for course reserves.

Access to Colorado Libraries

The PCC Library is a Colorado Libraries Collaborate (CLC) member. PCC students and staff members at PCC are allowed to check out materials from other participating Colorado libraries by showing their PCC identification card.

Interlibrary Loans

Through this loan service, you may request books or journal articles from libraries statewide.

Marketing and Communications Office

PCC's Marketing and Communications Office is responsible for media relations, advertising, marketing, public relations, college branding and special events. The department is responsible for PCC's website and the myPCC portal. To keep PCC students and the college informed, Marketing and Communications publishes timely news via an electronic newsletter called the Panther Pause and FYI News, a quick-read flyer that is posted in the restrooms.

Office of Recruitment

The Office of Recruitment conducts an array of activities to create community awareness of PCC programs and the college in general. These activities include conducting campus tours and visiting schools and organizations to deliver presentations. Recruitment also assists prospective students through the enrollment process. Student Ambassadors serve a key role in assisting with these efforts. If you are interested in scheduling a campus tour for yourself or a group, or would like to meet with staff to assist you through the enrollment process, please stop by the New Student Studio, located in the Student Center, Room 155, or call 719.549.3116 or click to schedule a tour. On the Fremont Campus, tours can be arranged by calling 719.296.6105.

Public Safety/PCC Police Department

Reporting a Crime

In the event of any crime, fire or emergency on campus or its surrounding area(s), students and employees should immediately notify the law enforcement entity for the respective location, as follows:

Pueblo Campus – PCC Police Department, Student Center, Room 152 at 719.549.3355, 911 or using one of eight Blue Emergency Phones located throughout the Pueblo campus.

City of Pueblo – Pueblo Police Department, 200 S. Main St, Pueblo, CO 81003, at 719.553.2538

Pueblo County – Pueblo County Sheriff's Office, 909 Court St., Pueblo, CO 81003, at 719.583.6250

Fremont Campus – PCC Police Department (Room FC115), at 719.296.6130 or 911

City of Cañon City – Cañon City Police Department, 161 Justice Center Road, Cañon City, CO 81212, at 719.276.5600

Fremont County - Fremont County Sheriff's Office, 100 Justice Center Road, Cañon City, CO 81212, at 719.276.5555

PCC Southwest Site/City of Durango – Durango Police Department, 990 E. Second Ave., Durango, CO 81301, at 970.385.2900 or 911

PCC Southwest Campus/City of Cortez – Montezuma County Sheriff's Office, 730 E Driscoll St., Cortez, CO 81321, at 970.565.8452 or 911

Reporting a Crime to a Campus Security Authority (CSA)

Although PCC encourages all criminal incidents be reported to law enforcement, a student may report a crime to a Campus Security Authority. However, students may also report a crime to a Campus Security Authority (CSA), who is responsible for forwarding non-identifying information to the PCC Police Department for inclusion in the annual Security Report, regardless of whether the victim chooses to file a report with law enforcement. CSAs are defined as "someone who has significant responsibility for students and campus activities." The following are examples of CSAs:

Club sponsors	Chief Student Services Officer
PCC Police Department	Department chairs
Disability Resources and Services staff	Financial aid advisors
Student Life staff	Title IX coordinators

Confidential Crime Reporting

A witness to a crime who wishes to remain anonymous may call the following to report a crime anonymously. Please remember these are voice message systems only and immediate action will not be taken.

- Pueblo Campus – Pueblo Crime Stoppers, 719.549.7867
- Fremont Campus – Fremont County Crime Stoppers, 719.275.7867
- Southwest Campus – Durango-La Plata Crime Stoppers, 970.247.1112
- All Campuses – Safe2Tell: 1.877.542.SAFE

Recreation Center

The PCC Recreation Center is located in the Student Center, Room 159. The Recreation Center provides recreation, fitness, special events and wellness opportunities for students, faculty, staff and community members.

We strive to enhance healthy lifestyles and well-being on the PCC campus in a safe and welcoming environment.

Individual Fitness: More than 60 pieces of cardiovascular and weight training equipment are available.

Group Fitness Classes: Every semester the Recreation Center provides a variety of Group Fitness classes with a schedule available on the PCC Recreation Center webpage. Classes offered are Senior Strength Training, WOW (Women on Weights), Yoga, Tai Chi, Zumba, Chair Yoga, Strength Training and Cycle Fit.

Intramural Sports: We offer a variety of co-ed seasonal intramural sports. Intramural sports are open to all students, faculty, and staff which includes flag football, basketball, soccer and volleyball. Seasonal information on intramural sports and questions can be directed to the Recreation Center.

All PCC students enrolled in on-campus (Pueblo) classes pay a Recreation fee with their tuition and have access to the Recreation Center at no additional cost. Students enrolled in online classes only, or in classes at other PCC campuses (Fremont, Mancos, Durango) may purchase a \$20 monthly membership or \$5 day pass. All incoming new students, registered in on-campus classes, will have Recreation Center access at the start of the semester, when classes begin.

Recreation Center access is granted only for the semester in which the student is enrolled in classes and has paid the recreation center fees. Students enrolled in fall and are registered for spring classes, will have access to the Recreation Center during the winter break. Students not enrolled in summer classes, but enrolled in fall and/or spring classes, will have to pay the \$20 monthly membership fee for the summer months.

Operating hours are 5 a.m. to 9 p.m. Monday-Thursday, 5 a.m.-6 p.m. Friday and 7 a.m.-3 p.m. Saturday. The center is closed on Sunday. Please call 719.549.3363 for more information.

Referral Services

These services are offered to students who need ongoing counseling, mental health, and alcohol assistance. You may contact our Health Clinic located in the Medical Technology Building, Room 118 on the Pueblo Campus and the Go!Zone at the Fremont Campus. We also have Navigator Trainers on the Pueblo Campus located in the Student Center, Room 241. These offices provide a number of services.

Crisis Intervention

Assistance is available to students who are experiencing a crisis. Once the crisis has passed, we refer students to off-campus resources.

PROJECT ACCESS (Advancing Community Care; Enhancing Student Success)

The Pueblo Campus of PCC has partnered with Catholic Charities to offer assistance to students. In addition to an Options 4 Change class, Project Access provides referrals to numerous community services. This is an exciting partnership that is a valuable resource for PCC students.

Drug and Alcohol Prevention Information

PCC maintains drug prevention information and resources in cooperation with the referral sources in the community. We also have information concerning alcohol abuse prevention. These resources are available to all employees and students. You can obtain information and confidential referrals by contacting the Director of Student and Judicial Affairs.

STEM Center

The STEM Center is located in the Academic Davis Building, Room 150 and provides students with state-of-the-art equipment to supplement their classroom experiences in Science, Technology, Engineering and Math. Equipment includes:

Computers and Laptops: Laptops can be checked out and retained in the STEM Center for your use with a student ID. Students can access the Internet, print assignments and access software programs that include CAD, SketchUp and Adobe. This software can be used to design 3D projects for our many 3D printers.

Nine 3D printers: The 3D printers in the STEM Center serve all of your design needs and include six Makerbots, two Afinias and one Mojo. These printers can be utilized by students to complete class projects as well as personal projects for a small fee.

Raspberry Pi Lab: Within the STEM Center is a Raspberry Pi Lab that is used in conjunction with the Engineering Methodologies class but can be utilized by students and faculty. It contains six stations with monitors, keyboard and mouse for Raspberry Pi hookup.

Three zSpace Computers: zSpace technology combines elements of virtual reality and augmented reality to create lifelike learning experiences on the computer. Applications include **Cyber Science**, which includes astronomy, botany, chemistry, Earth science, human anatomy, microbiology, mechanical, paleontology and zoology; **Cyber Anatomy**, which includes information on human anatomy; **Curie's Elements** (chemistry); **GeoGebra** (algebra); **Leopoly** (sculpting); **Newton's Park** (physics); and **Franklin's Lab** (circuitry).

Other Equipment: The STEM Center also houses two classrooms for science and math classes and contains other equipment such as Lego robotics, instant challenge supplies and meccanoid robotics.

Events: The STEM Center hosts many STEM events, including Technology Tuesdays, Science Thursdays and the Stars of STEM speaking series. Technology Tuesday provides hands-on opportunities to expose students, faculty and community members to new or existing technologies. Science Thursdays offers students, faculty and community members hands-on science inquiry. The Stars of STEM speaking series offers students, faculty and community members an inside look at what STEM professionals do in their careers and offers insight on the education required to obtain a position in that particular STEM field.

Student and Judicial Affairs

The Director of Student and Judicial Affairs is located in the Student Center, Room 241. The director also provides a number of services to college students, including:

- Mediation of conflicts with students or others on campus
- Resolution of disputes with other students or college offices
- Promotion of civility on campus
- Promotion of academic integrity
- Educational awareness of dating violence and stalking

The Student Center and Auxiliary Services

The PCC Student Center is a multiuse facility that provides one-stop shopping for many student services. The Student Services Division is located on the upper level. The lower level of the Student Center houses recreational and service facilities; these include the Bookstore, Recreation Center, televisions, Pueblo Joe's Café, and student lounge areas. Wi-Fi access throughout the building has been implemented. A ballroom is located on the upper level; and is designed to accommodate special dinners, social functions and large group meetings for students and community members. For more information, call 719.549.3074 or visit the Student Center, Room 234.

TRIO Student Support Services (TRIO SSS)

TRIO Student Support Services is a federally funded program that provides opportunities for academic development, assists students with basic college requirements, and serves to motivate students toward the successful completion of their postsecondary education. The goal of the program is to increase the college retention and graduation rates of its participants and help students make the transition from one level of higher education to the next. Services include instruction in basic study skills; tutorial services; academic, financial, and personal counseling; assistance in securing admission and financial aid for enrollment in four-year institutions; and guidance on career options.

TRIO Upward Bound

The vision of the Upward Bound Program at PCC is to provide eligible students the opportunity to increase the academic performance and graduate from high school, go to college and to motivate the students to be the first generation to graduate from college with a four-year degree. The Upward Bound grant is funded through a TRIO grant from the U.S. Department of Education.

TRIO Veterans Upward Bound

Veterans Upward Bound (VUB) is funded by the U.S. Department of Education to provide free college preparatory courses to qualified veterans beginning or returning to college. Day and evening classes are offered year-round at Pueblo Community College, Pikes Peak Community College and CSU-Pueblo. Assistance is offered to veterans who do not have high school diplomas prepare for the GED test. Application assistance, career and academic advising, transcript requests, financial aid assistance, basic skills testing and individual tutoring are offered to VUB veterans. For more information, please contact the Veterans Upward Bound Office at 719.549.3077 or Room 154 in the Davis Academic Building.

Two-way Interactive Video Classrooms

Two-way interactive video classes are taught at any campus location with students participating from another campus location through video conferencing. These courses include online classroom instruction and participation.

Pueblo Corporate College

Pueblo Corporate College is committed to providing quality customized workforce training, professional development and personal enrichment opportunities throughout Pueblo Community College's campus communities.

Services available through Pueblo Corporate College include:

Customized Corporate Training and Consulting: Delivering customized education, training and consulting programs, Pueblo Corporate College provides existing workers and businesses with the tools to stay competitive in the global marketplace through a variety of options that meet the demands of today's industries.

Professional Development and Continuing Education: Offering educational opportunities for adults, Pueblo Corporate College provides short-term courses to assist professionals with upgrading their skills to advance their careers, renew licenses and prepare for certifications.

Lifelong Learning: Through unique opportunities, community individuals may participate in a variety of workshops and programs that provide personal enrichment and engagement with others.

Business and Entrepreneurial Training and Consulting: Committed to helping new and existing businesses grow, the **Southern Colorado Small Business Development Center**, a branch of Pueblo Corporate College, provides confidential consulting and state-of-the-art training programs tailored to meet the challenges and opportunities available for area companies.

State of Colorado Department Training and Development: Partnering with the Statewide Training and Development Center, professional workshops are available to the southern Colorado region.

Simulation Training and Extended Studies for Healthcare Professionals: Utilizing the Pueblo Community College Simulation Lab at St. Mary-Corwin Medical Center, Pueblo Corporate College offers customized, hands-on training for a wide variety of occupations in the healthcare industry.

Pueblo Corporate College is committed to:

- Identifying the best solutions and measures of success for each customer
- Efficient and timely response to each engagement and contact with a dedicated single point of contact
- Accurate and measurable results
- Exceptional customer service by responding to customer needs with flexibility and comprehensive project management
- Access to a vast network of experts and resources, including grant opportunities through the Governor's Office of Economic Development and International Trade.

For additional information, contact Pueblo Corporate College at 719.549.3320 or 866.478.3256.

Pre-College Programs

Pre-College Programs offer an array of opportunities for individuals seeking a high school diploma, GED or pathway into higher education. These second-chance programs are designed to meet the needs of the community and address the need for providing opportunities for a more productive life.

Gateway to College – Gateway to College serves students ages 17-20 who have not experienced success in a traditional high school but have a desire to get back on track and earn a diploma and more. Students can earn a high school diploma while earning college credits toward an associate degree or certificate. Gateway to College students are college students, with college opportunities and college expectations.

GED Classes – The GED Preparation Class is designed to help individuals who have not earned a high school diploma earn a GED (General Education Development). A GED has become an essential first step for improving an individual's opportunities for employment and education. The curricula include the complete Steck-Vaughn Test Preparation for the 2014 GED series that is divided into four (4) subject area sections: Reasoning through Language Arts, Mathematical Reasoning, Social Studies and Science. GED Academy provides computer-based instruction and built-in assessment process that creates customized learning plans.

Student Life

The Student Life Department is committed to providing students every opportunity to make the most of their time here at PCC. Our aim is to enrich the student experience and promote lifelong learning by fostering an inclusive community that will empower students to lead and serve through meaningful involvement – whether it be helping plan an event, taking on a leadership role, participating in clubs or joining an intramural sports team.

The Associated Student Government

The Associated Student Government is the student governing body which is available at all campuses – Durango, Fremont, Mancos and Pueblo.

Mission Statement

Empower students by creating opportunities to become involved and provide leadership while collaborating with the college and community in order to establish a supportive environment for our PCC students so they become personally enriched.

Purpose Statement

The purpose of Pueblo Community College Associated Student Government is to represent the student population on all campuses by pursuing social, political, academic and administrative initiatives of interest to our growing and diverse student body. In addition, the Pueblo Community College Associated Student Government shall act as a liaison between the student body and the college administration, the overall college community, the local, state and federal governments and other individuals and organizations. The ultimate task of the Associated Student Government is to address the needs, problems and concerns of the student body and to carefully listen to suggestions from the student body.

Student Organizations

All PCC students are encouraged to join any campus/site organization that is recognized by the Associated Student Government and advised by a member of the faculty/staff. A student must be in good standing and meet the entrance requirements of the organization.

Fremont Campus

Automotive Club

The Pueblo Community College/Canon City High School Auto Club is designed to give students an opportunity to learn and gain experience in the automotive area outside of regular class time. The Auto Club is open to students currently enrolled in auto classes and students not able to take auto classes but interested in automotive.

Health Professions Club

The Student Nurse's Club is open to all pre-nursing, first-year and second-year nursing students. It is a service club that works with the Associated Student Government to support campus activities. Members also serve as volunteers for various community fairs and clinics, enhancing the health of the public through education, action and service.

Students Helping Students Club

Students Helping Students is a club of students getting together to help other PCC students by utilizing the talents and abilities of all its club members. This club's mission is to give advice or point students in the right direction.

Pueblo Campus

Art Club

The Art Club seeks to enhance the cultural atmosphere of PCC, provide artistic students with a forum in which they can discuss art esthetics and technique and provide a voice in the Associated Student Government to represent the community of artists on campus.

Colorado-ADN Club (Associate Degree Nursing Club)

PCC Nursing students and other interested students can join this club for the promotion of Associate Degree in nursing. The club acts as an advocate for student ADN's; it also helps them enhance the health of the public through education, action and service.

Culinary Arts Club

The Culinary Arts Club is composed of students and alumni of the Culinary Arts and Hospitality Studies Program. The club sponsors on-campus culinary arts activities and participates in local and statewide events, as well as travel and tourism opportunities for all members.

Dented Circle (Philosophy Club)

The purpose of the Dented Circle Philosophy Club is to exercise philosophical thought among club members and encourage critical thinking among the general public through outreach.

Fire Science Club

The purpose of the Fire Science Club is to promote fire safety awareness and to educate, prepare and demonstrate what to do in case of a fire-related emergency, how to safely handle emergency situations and to educate about the potential hazards found in households, businesses and the workplace.

History Club

The History Club encourages and promotes the study, exploration and appreciation of history through discussions, travel to historical sites and research. It recognizes excellence in the study of history through competitions and other academic forums.

Occupational Therapy Assistant (OTA) Club

This club acts as an advocate for occupational therapy to enhance the health and wellness of students and the general public. It participates in education, action and service projects on campus and in the Pueblo community.

Panther Players

The Panther Players aim to develop and encourage student interest, passion and education in the fine arts and spread the love of the fine arts to the PCC campus and beyond.

Pen & Quill (Writing Club)

The Purpose of **Pen & Quill** Writers club is to build a strong writing community that is dedicated to personal growth and producing professional excellence. This will be accomplished by participating in a positive, constructive, and productive workshop designed to peer review, enhance skills, and give helpful feedback. Moreover, members can share their own work as well as participate in community events. This organization will sharpen written communications skills, inspire imagination, boost creative thinking, and encourage members to strive towards realistic and attainable goals while harnessing effective creative, professional, and academic writing.

Phi Beta Lambda (PBL)

PBL seeks to develop competent and aggressive business leaders at Pueblo Community College through networking, creating business opportunities, and competition.

Phi Theta Kappa

Phi Theta Kappa is an international scholastic honor society for two-year community and junior colleges. Phi Theta Kappa recognizes student academic achievement at PCC and promotes academic excellence at the college. To be eligible for membership, a student must be currently enrolled with a 3.5 grade point average after completing 12 or more credit hours of college-level work. PCC's Alpha Rho Theta Chapter of Phi Theta Kappa is an active society, participating in many community service, scholarship and fellowship events. After induction, a student may select standard or enhanced membership, which is determined by the level of participation in chapter activities. As a Phi Theta Kappa member, you will be honored at graduation for outstanding academic achievements.

President's Leadership Program (PLP)

The President's Leadership Program provides a network of academic courses, co-curricular and service learning opportunities that address intellectual and pragmatic issues of leadership and followership in American life.

PS CARE

The mission of Psychology and Social Work: Careers and Resources for Education (PS CARE) shall be to provide students interested in the areas of psychology and/or social work with a student support system to help with awareness, resources and education for future careers. PS CARE offers member's opportunities to participate in activities designed to provide awareness of social issues and assistance for those in need in the Pueblo community.

Physical Therapist Assistant (PTA) Club

The PTA Club promotes physical therapy through various activities during the academic year, encourages participation in service activities for the community, and promotes professional and career development at the local, state and national level.

Respiratory Care

The PCC Respiratory Care Club will encourage and promote professional excellence, serve as an advocate for the students and the college, provide service to the community, and promote the profession of a Respiratory Therapist.

Science, Technology, Engineering and Mathematics (STEM) Club

The mission of the PCC STEM club shall be to mentor members, provide resources for scholarships and provide support for the science, technology, engineering and mathematics students at PCC. Assistance with proofreading of scholarship essays for admittance into four-year institutions is provided. As a club, we will also participate in campus and community events.

Space Grant Robotics Team

The Space Grant Team is in association with the Colorado Space Grant Consortium (COSGC), which is funded by NASA and is a statewide organization involving 17 colleges and universities in Colorado. COSGC hopes to inspire PCC students to become involved with engaging, hands-on experiences in programming and designing in many different endeavors such as balloon satellites, robotics and electronic wearables. This organization also gives students the opportunity to become involved in many areas of scientific research.

Student Ambassador Program

The Student Ambassador program allows PCC to recognize students and to employ their talents for the good of the college. Student Ambassadors – a key part of the Office of Recruitment team – help with campus tours, recruitment activities, special events and speaking engagements on the Orman and Fremont Campuses. To learn about eligibility requirements, contact the Director of Recruitment at the Orman Campus or email recruitment@pueblocc.edu.

Student Chapter American Dental Hygienists Association (SCADHA)

Dental Hygiene students are automatically members of SCADHA and associated with the American Dental Hygienists' Association. SCADHA meets monthly for business and professional development, as well as to organize community service and fundraising projects to finance its community and school activities. It emphasizes personal and professional development, encouraging students to assume responsibility for the procedural and financial aspects of managing a professional organization.

Thoreau's Well Read (Book Club)

Thoreau's Well Read seeks to bring reading alive so that it becomes more than simply a solitary hobby. The club seeks to unite those who take extra value to what literature has to offer, help those who have an interest in literature obtain proper materials, and involve the PCC community in activities that provide academic benefits and campus unity.

The League of TRIO Students

The League of TRIO Students provides students with experiences and opportunities to further their education through service learning projects, fundraising, and campus & community activities. Students strive to educate the Pueblo community about issues relating to first-generation, limited income, underrepresented students, and students with documented disabilities; all while advocating for their fellow TRIO participants.

TRIO Upward Bound

Provide students with experiences and opportunities to build their leadership skills to educate the Pueblo community about issues relating to TRIO programs and to be more visible on campus and within the Pueblo community.

Veteran Service Group

The primary purpose of the Pueblo Community College VSG is to provide a network of campus and community support for military veterans. The VSG will also work with PCC administration to ensure that the needs of current and prospective student veterans continue to be met.

PCC Southwest Campus

Art Club

The Art Club provides students with the opportunity to pursue their passion for art beyond the classroom. Students are encouraged to support their creativity by organizing art shows, fundraisers and workshops that engage the community within the school and outside in the broader community.

Cosmetology Club

The Cosmetology Club helps students become more involved in the community, organizes events and fundraisers and encourages community and college-wide participation in cosmetology education beyond the classroom.

e-STEM

eSTEM is an interdisciplinary club actively engaged in the technical and leadership skills of the students in Southwestern Colorado and the Four Corners Region. Engaging the student by coupling eSTEM academic concepts with real-world application and experience.

Student Nurse Association

Open to second-year nursing students. Members work with the area Colorado Nurse Association.

Important Legal Information

Student Privacy Rights

The Family Educational Rights and Privacy Act of 1974 (FERPA), commonly known as the Buckley Amendment, affords students certain rights with respect to their education records. The Act helps protect the privacy of your records by requiring that PCC limits the disclosure of information from these records to third persons, as well as notify you of the right to review and correct your records.

Pueblo Community College (PCC) may release the following directory information about you to the public:

- Student name
- Major field of study
- Dates of attendance
- Degrees and awards received
- Enrollment status (full time, part-time, etc.)
- Most recent educational institution attended
- Participation in officially recognized activities and sports
- Height and weight (only for students in officially recognized activities and sports)

PCC Notification of Rights under the Family Educational Rights and Privacy Act (FERPA) of 1974. The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. FERPA rights are afforded to the students at the time of admission. These rights include:

The right to inspect and review the student's education records within 45 days of the day PCC receives a request for access. A student should submit to the Records Office a written request that identifies the record(s) the student wishes to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Registrar, staff shall advise the student of the correct official to whom the request should be addressed.

The right to request the amendment of the student's education records that the student believes is inaccurate, misleading or otherwise in violation of the student's privacy rights. A student who wishes to ask PCC to amend a record should write the Registrar (who will notify the college official responsible for the record), clearly identify the part of the record the student wants changed, and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

The right to provide written consent before PCC discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to College officials with legitimate educational interests. A College official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide a service instead of using college employees or officials (such as an attorney, auditor or collection agent); a person serving on the College Board; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. PCC has designated the National Student Clearinghouse as a College official. A College official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College. Upon request, the College discloses education records, without a student's consent, to officials of another school, in which a student seeks or intends to enroll, or after enrollment. The College may share educational records to parents in the following circumstances: for a student who is dependent under IRS tax code; a student under 21 years old

who has violated a law or the school's rules or policies governing alcohol or substance abuse; and when the information is needed to protect the health or safety of the student or other individuals in an emergency.

FERPA Annual Notice to Reflect Possible Federal and State Data Collection and Use. As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records – including the Social Security Number, grades or other private information – may be accessed without your consent. First, the US Comptroller General, the US Attorney General, the US Secretary of Education or state and local education authorities (Federal and State Authorities) may allow access to your records and PII without your consent to any third party designated by a Federal or State Authority to evaluate a federal or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain and share without your consent PII from your educational records, and they may track your participation in educational and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service and migrant student records systems.

The right to file a complaint with the US Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, US Department of Education, 400 Maryland Avenue, SW Washington, DC 20202-5901.

In accordance with the Fair and Accurate Credit Transactions Act (FACTA) of 2003, **Pueblo Community College** adheres to the Federal Trade Commission's (FTC) Red Flag Rule (a Red Flag is any pattern, practice or specific activity that indicates the possible existence of identity theft.), which implements Section 114 of the FACTA and to the Colorado Community College System's Identity Theft Prevention and Detection Program, which is intended to prevent, detect and mitigate identity theft in connection with establishing new covered accounts or an existing covered account held by the Colorado Community College System (System or CCCS) or one of its thirteen (13) community colleges, and to provide for continued administration of the Program. If a transaction is deemed fraudulent, appropriate action will occur. Action may include, but is not limited to, canceling of the transaction, notifying and cooperating with law enforcement, reporting to the Student Code of Conduct Office, and notifying the affected parties. For more information on FACTA, Red Flag Rules and Identity Theft Consumer Information, please see the links provided below:

- Federal Trade Commission Statute
- Red Flag Rules
- Identity Theft Consumer Information

Solomon Amendment

Institutions of higher education receiving Federal grants and contracts are subject to the Solomon Amendment (10 U.S.C. 1983 § 549). It allows federal funding to be cut if military recruiters are prohibited from recruiting on campuses/sites or are prohibited from accessing student directory information for recruiting purposes.

Covered student directory information ("student recruiting information") is defined as name, address, telephone listing, age or year of birth, academic major and level of education (e.g. freshman, sophomore, etc., or degree awarded). Where there is a conflict between the Family Educational Rights and Privacy Act of 1974 (FERPA), the Solomon Amendment would supersede FERPA. A student who has requested nondisclosure of directory information to any party under FERPA remains protected.

Institutions must respond to each of the separate branches of the military services, but only need to do so once per academic semester to each branch. **Military recruiters can contact the Records office for more information on this student directory information.**

Affirmative Action/Equal Opportunity

PCC is an equal opportunity educational institution and the College does not discriminate on the basis of sex/gender, race, color, age, creed, national or ethnic origin, physical or mental disability, veteran status, pregnancy status, religion, genetic information, gender identity or sexual orientation in its activities, programs or employment practices as required by Title VII, Title IX, Section 504, Age Discrimination Act, and Title II of the ADA. The College has designated the Director of Human Resources as its Affirmative Action Officer with the responsibility to coordinate its civil rights compliance activities and grievance procedures.

For information, contact the Director of Human Resources, 900 W. Orman Ave., Pueblo, CO 81004, telephone: 719.549.3220; or the Office for Civil Rights, US Department of Education, Region VIII, Federal Office Building, 1244 N. Speer Blvd., Suite 310, Denver, CO 80204, telephone 303.844.5695, TDD 303.844.3417.

Sexual Harassment Notice

PCC does not tolerate or condone sexual harassment in any form. Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or of academic status in course, program or activity; or participation in a class or program.
- Submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting the student or employee.
- Creating an intimidating, hostile or offensive academic work environment; or unreasonably interfering with another's academic performance or work.

Sexual harassment as defined may include, but is not limited to, the following:

- Sex-oriented verbal "kidding," abuse or harassment.
- Unwelcome sexual advances or requests for sexual favors.
- Repeated remarks to a person with sexual or demeaning implications or the use of vulgarity.
- Unwelcome touching, such as patting, pinching or brushing against another's body.
- Suggesting or demanding sexual involvement, accompanied by implied or explicit threats concerning one's grades, employment status or similar personal concerns.
- Unwelcome posters, letters or other writings or communications of a sexual nature.
- Other verbal or physical conduct of a harassing nature.

Sexual harassment is illegal and is a violation of Title VII of the Civil Rights Acts of 1964, as amended, and Title IX, which prohibits sexual discrimination in educational programs or activities. PCC is committed to upholding this policy prohibiting sexual harassment. Violation of this policy may be grounds for dismissal. While it is the purpose of this policy to protect all persons associated with the College from sexual harassment, it is also a violation of this policy to knowingly make a false allegation of sexual harassment.

If you feel you have been subjected to sexual harassment and need information about what to do, contact the Director of Human Resources at 900 W. Orman Ave., Pueblo, CO 81004, telephone: 719.549.3220; or the College President.

All matters involving sexual harassment complaints are taken seriously and will be investigated. Complaints will remain confidential to the extent possible. Filing of a complaint or otherwise reporting sexual harassment in good faith will not reflect upon your status or affect future employment, work assignments or grades.

Violence Against Women Act (VAWA), Section 304

On March 7, 2013, President Barack Obama signed a bill that reauthorized the Violence Against Women Reauthorization Act (VAWA). Included in the bill is Section 304, which addresses sexual violence in higher education. Pueblo Community College fully supports VAWA by educating, preventing and supporting the community about issues surrounding domestic violence, dating violence, sexual assault and stalking; defining consent; promoting options for bystander intervention; recognizing warning signs of abusive behavior; and promoting ways to avoid potential attacks. PCC offers mandatory Human Resources VAWA training for all staff and student-lead activities that bring awareness of these issues to the student community. Assistance for victims is available through a consortium of the Pueblo Rape Crisis Center and PCC Judicial/conduct office. Project ACCESS can offer students referrals of off-campus organizations should the need arise. For more information feel free to contact any of the following offices: Director of Human Resources/Title IX Coordinator, Chief Student Success Officer, Director of Student and Judicial Affairs and Director of Public Safety.

Title IX Statement

Pueblo Community College (PCC) is committed to providing a learning environment that promotes personal integrity, civility and mutual respect free of sex discrimination and sexual misconduct. Title IX of the Educational Amendment Act of 1972 states that: **No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal assistance.** Sex discrimination violates an individual's fundamental rights and personal dignity. PCC considers sex discrimination in all its forms to be a serious offense. **This policy includes all forms of sex discrimination, including sexual harassment, sexual assault and sexual violence by employees, students or third parties.** This policy has been developed to reaffirm individual rights and responsibilities and to provide recourse for those individuals whose rights have been violated. It should serve as a guide on the expectations we have for sexual communication, sexual responsibility and sexual respect. Visit the PCC website for more information about the policy and for complaint procedures and forms.

All College employees, including student employees in certain roles, are mandatory reporters of sexual misconduct and discrimination. Mandatory reporters must ensure that any sexual misconduct or discrimination that they become aware of is reported to the College's Title IX Coordinator or designee. Reports may also be made to the College's Department of Public Safety at 719.549.3355. This policy applies to all sexual misconduct, discrimination or harassment regardless of the gender, gender identity or sexual orientation of the complainant or respondent.

Grievance Process

Pueblo Community College provides a grievance procedure for students, clients or volunteers who are providing a service to benefit the College under the supervision and control of a college employee (hereafter noted as grievant). A client or volunteer may only grieve a decision which bans him or her from the campus/site. A grievable matter is any alleged action which violates or inequitably applies written college policies or procedures. The grievant must be personally affected by such violation or inequitable action. Matters that are not grievable include those matters upon which the College is without authority to act, academic decisions (unless there is an allegation that the decision was motivated by illegal discrimination) and disciplinary actions.

For more information about the PCC grievance policy, refer to the PCC Student Handbook.

Complaints

Pueblo Community College welcomes comments, suggestions and feedback from students, clients or volunteers. Individuals are encouraged to provide feedback or seek resolution about any concern or complaint at the lowest informal level progressing through the appropriate chain of command at all PCC campuses/sites. If the concern or complaint is not resolved through an informal process, a written complaint may be submitted to the Chief Student Services Officer.

Complaint Procedures

If you are taking any Pueblo Community College courses and you have a complaint about your experience with PCC, you have two options:

1. You can follow Pueblo Community College's process for student complaints, which can be found in the PCC Student Handbook, or complaint procedure and forms, or you may contact the Higher Learning Commission, which is Pueblo Community College's accrediting agency.
2. If you are residing outside of Colorado while attending Pueblo Community College, in many cases you can file a complaint in the state where you are residing. As required by federal regulations, each state is required to share a list of agencies where complaints can be filed.

Before exercising either of the above options, you should know that most, if not all, external complaint processes require the student to exhaust all avenues of complaint internal to the institution before they will consider a grievance.

Surveys and/or Research at Pueblo Community College

While surveying students and conducting research can be important methods for advancing knowledge, Pueblo Community College reserves the right to endorse, allow or not allow surveys and research at the College, and the right to determine the timing of when surveys and research may be conducted as stated in PCC Policy 550. The Office of Institutional Research (OIR) is responsible for reviewing all proposed surveys and questionnaires; protecting the rights of human subjects; ensuring good survey methodology and design; preventing specific populations from being over-surveyed; avoiding the collection of duplicated information; and encouraging sharing of survey results with the PCC community. The OIR is authorized to review, approve, require modifications in or disapprove surveys or questionnaires conducted by or through the College. All survey, questionnaire and research activity/project requests must be approved prior to administration. Contact the Office of Institutional Research (OIR) and submit the Survey/Questionnaire Request Form.

Student Right-To-Know & Campus Security Act

PCC strives to provide a safe and healthy environment that enhances the learning process. All students and employees should be able to attend classes, work on campus/site and/or participate in activities with a feeling that they are in an environment that is safe and secure. PCC provides to all prospective students and employees the Campus Security Policies and Procedures and the most recent campus crime statistics. This is part of the Federal Law No. 101-542, the Student Right-to-Know and Campus Security Act of 1990.

The information addresses six (6) topics related to campus crime and statistics: 1) a summary of PCC Crime Statistics, 2) policies regarding security, access to buildings and campus law enforcement, 3) procedures for reporting crimes and other emergencies, 4) information about sex offenses, 5) policies about the use, possession and sale of alcoholic beverages, and 6) programs about alcohol and drug abuse education, crime prevention and campus security policies.

Disclaimer Notices

Disclaimer for All Students

PCC disclaims liability of any kind for injury, illness, theft or damage of personal property of any student as a result of participation in field trips, shop or laboratory work, or classroom activities. Every reasonable effort is made to provide safe conditions for these activities.

Background and Drug Checks

Criminal background and drug checks are required of students entering all health and public safety certificate and/or degree programs. Additionally, the automotive program requires an application process to include screening. Certain offenses will preclude you from enrolling in a health program. Students should check with the program chair for specific requirements and due dates. Passing the background check and drug screening for admission and continuation in any PCC Health and Public Safety program does not guarantee that a graduate will pass the background check and/or drug screening for licensing or employment

Student Malpractice & Liability and/or Health Insurance

If you are enrolled in health professions and service programs, you must carry malpractice and liability insurance. Personal health insurance coverage is strongly recommended and is required by some clinical affiliates. The malpractice insurance coverage is available at a nominal cost through a group policy arranged by the College. Speak to your program advisor or the PCC Cashier about this type of insurance coverage.

Disclaimer for Criminal Justice Majors

Many criminal justice and related agencies require certain standards of prospective employees at the application stage. Job applications ask applicants if they have ever been arrested for any offense, either misdemeanor or felony. An affirmative response or finding on the part of a prospective employer may be grounds to deny employment. A second requirement may require applicants to take psychological tests, lie detector tests and medical tests in order to determine if applicants are suited for a particular position.

With respect to the above, the Criminal Justice Department and the Pueblo Law Enforcement Academy of PCC advise that entrance into any CRJ course of study or subsequent graduation is no guarantee, explicit or implied, that a student is employable. Further, should a student be unable to be placed and/or remain in the course CRJ 280, Cooperative Education/Internship, after two good faith attempts at placement, neither PCC nor its employees accept responsibility in respect to the student's fulfillment of this program.

In an attempt to appropriately advise prospective students, a prior arrest and/or drug and alcohol history should be discussed with a Criminal Justice advisor prior to the student's admission into the Criminal Justice Program. Neither PCC nor Criminal Justice advisors will be held liable for a student's decision to continue in the program.

Disclaimer for Dental Hygiene Majors with a History of Felony

The State of Colorado Board of Dental Examiners requires licensing dental hygienists to answer questions concerning felony history, excessive use or abuse of controlled substances/alcoholic beverages (within the last five years), and any physical or mental condition that may affect the ability to practice dental hygiene. Other questions asked by the State Board pertain to an applicant's history of malpractice judgment and any disciplinary action by any government or private agency. The PCC Department of Dental Hygiene assumes no responsibility for the denial of licensure by the Colorado State Board of Dental Examiners.

Disclaimer for Emergency Medical Services Majors with a History of Felony

The Colorado Department of Public Health and Environment – Prehospital Division, which is responsible for certification of emergency medical technicians in Colorado, requires a criminal background check. Certain felonies or misdemeanors may prevent you from obtaining certification. The Emergency Medical Services programs at PCC assume no responsibility for the denial of certification by the Colorado Department of Public Health and Environment. For further information, contact the CDPHE-Prehospital Division at 303.692.2980.

Disclaimer for Nursing Majors with a History of Felony

The Colorado State Board of Nursing, which is responsible for licensing nursing personnel in Colorado, has varied restrictions which may affect those with a history of a felony conviction. The PCC Department of Nursing assumes no responsibility for the denial of licensure by the State Board of Nursing. Prospective students are responsible for contacting the State Board of Nursing at 303.894.2432 concerning any questions regarding their eligibility for licensure.

Disclaimer for Surgical Technology Majors with Criminal History

The State of Colorado Board of Regulatory Agencies requires licensing surgical technologist applicants to answer questions concerning felony history. The PCC Surgical Technology Program assumes no responsibility for the denial of licensure from the State of Colorado Board of Regulatory Agency. For further questions, you may contact the agency at 303.894.7800.

Disclaimer for Occupational Therapy Assistant Majors with a History of Felony

The National Board for Certification in Occupational Therapy (NBCOT) requires applicants to answer questions concerning felony history. This information is then available to states with licensure. The PCC Occupational Therapy Assistant Program assumes no responsibility for the denial of licensure in states in which there are such requirements. For further information, contact the NBCOT at 301.990.7979.

Disclaimer for Radiologic Technology Majors with Criminal History

Applicants are advised that persons with a prior felony, gross misdemeanor or misdemeanor may be declared ineligible for registry certification. The program assumes no responsibility for the denial of registry eligibility due to prior criminal conviction. Applicants who have any questions concerning registration restrictions due to a prior felony, gross misdemeanor or misdemeanor convictions are encouraged to undergo a **Pre-application Review of Eligibility for Certification** through the American Registry of Radiologic Technologists, **1255 Northland Drive, Mendota Heights, MN 55120; telephone, 651.687.0048.**

Disclaimer for Respiratory Care Practitioner Majors with a History of Felony

The State of Colorado Board of Regulatory Agencies requires licensing respiratory therapy applicants to answer questions concerning felony history. The PCC Respiratory Therapy Program assumes no responsibility for the denial of licensure from the State of Colorado Board of Regulatory Agency. For further questions, you may contact the agency at 303.894.7851.

Personnel

College Personnel

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<p>Amanda Corum, Executive Director, Pueblo Corporate College</p> <p>MBA, Colorado Technical University</p> <p>BS, Colorado State University-Pueblo</p> <p>AAS – Pueblo Community College</p>	<p>Julie C. Jimenez, Executive Assistant to the President</p> <p>BS, Regis University</p>
<p>Bryan Crawford, Director, Information Technology</p> <p>MS, University of Utah</p> <p>BS, Adams State College</p>	<p>Jeffrey Kenney</p> <p>Shared Governance Co-Chair</p> <p>Academic Excellence Administrator</p> <p>MA, University of Denver</p> <p>BS, AS, ST. Petersburg College</p>
<p>Dr. Samuel Dosumu, Executive Dean, PCC Southwest</p> <p>PhD, University of Colorado-Denver</p> <p>MBA, Regis University</p> <p>BS, Xavier University of Louisiana</p>	<p>Vacant, Dean, Nursing</p>
<p>Dr. Todd Ecklund, Chief Academic Officer</p> <p>Edd, University of South Dakota</p> <p>MBA, Minnesota School of Business</p> <p>MEd, BS, University of Minnesota-Twin Cities</p>	<p>Mark Peacock, Executive Dean, Fremont Campus</p> <p>JD, Northern Illinois University</p> <p>BS, Eastern Illinois University</p>

<p>Robert Gonzales, Chief Business Officer</p> <p>MS, University of Colorado-Denver</p> <p>BS, Colorado State University-Pueblo</p>	<p>Jennifer Sherman, Dean, Business and Advanced Technology</p> <p>MBA, BS, Colorado State University-Pueblo</p>
<p>Erin Hergert, Director, Marketing & Communications</p> <p>MBA, Colorado Technical University</p> <p>BA, Colorado State University</p>	<p>Dr. Heather Speed, Chief Student Services Officer</p> <p>PhD, MA, University of North Texas</p> <p>BA, Sam Houston State University</p>
<p>Ken Nufer, Chief Human Resources Officer</p> <p>BSBM, University of Phoenix</p> <p>AS, City University</p>	<p>Tricia Vigil, Shared Governance Co-Chair</p> <p>Department Chair/Faculty -- Occupational Therapy Assistant</p> <p>MBA, Colorado Technical University</p> <p>BS, Utica College of Syracuse University</p>

Directors

<p>Ross Barnhart</p> <p>Director, Learning Center</p> <p>MEd, University of Vermont</p> <p>BA, Colorado College</p>	<p>Andrea Martinez</p> <p>Director, TRIO Student Support Services</p> <p>MSW, University of Denver</p> <p>BA, California State University-San Bernardino</p>
<p>Barbara Benedict</p> <p>Director, Admissions and Records</p> <p>MSPM, Colorado Technical University</p> <p>BS, Colorado Christian University</p> <p>AAS, Pueblo College of Business and Technology</p>	<p>Joey Mathews</p> <p>Director, STEM Career and Technical Education</p> <p>MS, BS, Colorado State University-Pueblo</p>
<p>Christina McGrath</p> <p>Director, Library Services</p> <p>MLS, San Jose State University</p> <p>BS University of Maine-Augusta</p> <p>AAS, Pueblo Community College</p>	<p>William Brown</p> <p>Director, Public Safety</p> <p>AAS, Aims Community College</p>
<p>Elizabeth "Liz" Medendorp</p> <p>Director, Assessment Student Learning</p>	<p>Linda Capito</p> <p>Director, Dental Hygiene Program</p>

MA, University of Massachusetts Amherst BA, University of Michigan	MS, Colorado State University-Global Campus BS, Oregon Institute of Technology
Lisa Molina Regional Director, Student Success, PCC Southwest MA, MS, Central Michigan University	Aaron Daniel Director, Academic Services, Fremont Campus MA, National University
Michael Gage Director, Advising MEd, Arizona State University BA, Adams State College	Mary Alice "Mo" Montgomery Director, Hospitality & Culinary Arts BS, AS, Johnson & Wales University
Monica Hardwick Director, Financial Aid MBA, Colorado Technical University BA, Colorado State University-Pueblo	Angela Shehorn Director, Children First BA, Regis University AAS, AA, Pueblo Community College
Richard Ince Director, Pueblo Downtown Studio Campus BSBA, Adams State College	Jeanelle Soto-Quintana Director, Pre-College Programs BS, MBA, University of Southern Colorado
Ed Iniguez Director of Purchasing BS, Colorado State University-Pueblo	Vernon James Dean, Students MEd, University of South Carolina BS, Presbyterian College
Eva Tapia Director, Simulation Center MSN, University of California-San Francisco BSN, University of Colorado	Gabriel Lucero Director, TRIO Upward Bound MBA, BSBA, Colorado State University-Pueblo
Joseph Waneka Director, Facility Services	Michael Maffucci Director, Student Services, Fremont Campus
Chase Watts Director, Recruiting	Jonnie Martin Controller

MS, BS, Ferris State University	BS, BSBA, Colorado State University
Oliver Hazard "Perry" Pepper IV Regional Director, Academic Services-PCC Southwest MA, Humanities, Adams State University BA, U.S. History, Fort Lewis College	

Professional/Technical Staff

Aaron Lucero Engagement Coach MS, Adams State University BS, University of Northern Colorado	Eric Schwien Advisor, Financial Aid BS, Colorado State University-Pueblo	Miranda Ferganchick Student Success Coach MA, Western State Colorado University BA, University of Northern Colorado AA, Colorado Northwestern Community College
Alejandra de Anda Coordinator, Youth Programs & Lifelong Learning BA, Colorado State University-Pueblo AA, Pueblo Community College	Heather Houk Coordinator, Agriculture Programs, PCC Southwest	Misa Dunkel Specialist, Tutorial Services BS, University of Southern Colorado
Alex Linden Coordinator, Testing & Academic Support--PCC Southwest	Helen Taylor Assistive/Alternate Media Technician	Molly Milusnic Specialist, Community Advisor
Alixandria Aguilar Advisor, Recruitment & Retention Math/Science	James Hall Assistant Coordinator, PCC Southwest Site, Durango	Nancy Scofield Instructional Designer MEd, Lesley University

MBA, BSBA, Colorado State University-Pueblo	BA, Fort Lewis College	BA, Colorado State University-Pueblo AA, York College
Alyssa Casias Advisor, Recruitment & Retention	Jason Falsetto Coordinator, CTE Outreach BS, Colorado State University-Pueblo	Nancy Zimmer Coordinator, Operations MPA, University of Colorado-Colorado Springs
Amber Bell Specialist, Pre-College Program BS, Colorado State University - Pueblo	Jason Prescott Advisor, Recruitment & Retention BFA, BS, Colorado State University-Pueblo	Nazalee Workman Coordinator, Nursing Program Success & Progression AAS, Pueblo Community College
Amy Matthew Coordinator, Public Relations BS, University of Southern Colorado	Jeffrey Kenney Academic Excellence Administrator MA, University of Denver BS, AS, St. Petersburg College	Nicole Gennetta Coordinator, Health & Public Safety Simulation
Andrea Shepard Specialist, Recruiter	Jennifer Hayden Coordinator, CAO Operations BA, Western State Colorado University	
Andrew Nunn Coordinator, E-sports & Tech Pathways MS, Colorado State University-Global	Jennifer Reynolds Coordinator, Regional High School Outreach-PCC Southwest BA, Adams State University	Pamela Grable Advisor, Financial Aid
Arlene Sanders Administrative Assistant, Pre-College Programs	Jenny Garces Student Success Coach	Paul Murphy Senior Systems Administrator
Barbara Simms Coordinator, Enrollment Services BS, Colorado State University-Pueblo	Jill Sanchez Manager, Cashier's Office BSBA, Colorado State University-Pueblo	Paula Arellano Administrative Assistant, Children First

AS, Pueblo Community College	AGS, Pueblo Community College	
Bethany Powell Assistant Coordinator, PCC Southwest Site, Bayfield BA, Fort Lewis College	Jill Young Sales Manager, Conference & Event Services	Paula McPheeters Manager, Budget/Grant Compliance MPA, University of Colorado-Denver BS, University of Southern Colorado
Bonnie Clark Coordinator, Disability Resources BA, Regis University	Joaquin McDonald Coordinator, PCC Southwest Site, Durango BA, University of New Mexico	Pete Green Manager, Technical Services
Bonnie Housh Academic Excellence Administrator MS, BS, Colorado State University-Pueblo	John Fazekas Coordinator, Lab	RaeAnn Gutierrez Student Success Coach MS, Colorado State University-Fort Collins BS, Colorado State University-Pueblo
Brenda Gonzales-Rodriguez Advisor, Early Childhood Community AAS, Pueblo Community College	John Wooten Portfolio Coach, Career & Academic BSBA, Colorado State University- Pueblo AA, AGS, Pueblo Community College	Rebecca Wasil Advisor, Disability Resources BA, The Ohio State University
Brenda Wallerstedt Medical Assistant AAS, Intellitec College	Jordyn Hiner Specialist, Testing BSBA, Colorado State University- Pueblo AGS, Pueblo Community College	Rebekah Damman Special Assistant, Executive Dean, PCC Southwest MA, Concordia University Irvine BA, Rhodes College
Brian Estrada Business Manager, Small Business Development Center BSBA, Colorado State University- Pueblo	Joseph "Casey" Connors Coordinator, Academic Advising	Robert "Mike" Krakow Department Chair/Faculty - Computer Information Technology MBA, Colorado Technical University- Colorado Springs

		BS, Adams State University NSA Certificate, Denver Technical College
Carlee Bradford Student Success Coach BA, Colorado State University-Pueblo AGS, Pueblo Community College	Kari Yalotz Coordinator, Clinical & Laboratory BS, Adams State University AAS, Pueblo Community College	Robin Leach Specialist, Multimedia Technology/Distance Education AAS, Pueblo Community College
Carma Loontjer Coordinator, Small Business Development Center BA, University of Nebraska-Lincoln	Karyl M. Shawcroft Assistant Director, Admissions & Records MA Ashford University BS, Adams State University AAS, Pueblo Community College	Robin Romero Specialist, Customer Solutions BA, Colorado State University-Pueblo AA, Pueblo Community College
Carol Oles Software Developer BSBA, AAS, University of Southern Colorado	Katherine Cox Coordinator, Programs AAS, Certificate, Pueblo Community College	Robyn Maestas Clinical Coordinator, Dental Hygiene
Catlin Davis Program Manager, Welding BS, Colorado State University-Pueblo	Kathleen Collins Coordinator, Business & Accounting MBA, University of Phoenix BS, University of Colorado-Denver	Sally Ridley Resource Specialist, Pre-College Program-PCC Southwest MLS, University of Denver BA, Fort Lewis College
Charles Hurley Graphic Artist AAS, Pueblo Community College	Kimberly Hinkle Student Success Coach BS, Colorado State University-Pueblo	Scott Richards Coordinator, Media Productions
Cheryl Ayala Specialist, Customer Solutions BS, Franklin University AGS, Pueblo Community College	Kristina Lyon Student Success Coach B.S., Colorado State University - Pueblo	Shane Schirmer Manager, Core Technology BS, Colorado State University-Pueblo
Christopher Javornik	Laura Lucero	Stacey Hart

<p>Advisor, Academics Math & Science</p> <p>MA, BA, University of Colorado-Boulder</p>	<p>Coordinator, Admissions</p> <p>AAS, Pueblo Community College</p>	<p>Student Success Coach</p> <p>BS, Colorado State University-Pueblo</p>
<p>Chrystina Medina</p> <p>Program Specialist</p> <p>MA, Adams State University</p> <p>BS, Colorado State University, Pueblo</p>	<p>LeRoy Sandoval</p> <p>Coordinator, Concurrent Enrollment</p> <p>BS, Colorado State University-Pueblo</p> <p>AA, AAS, AGS, Pueblo Community College</p>	<p>Stanley Eubanks</p> <p>Coordinator, Technology Training & Laboratory-PCC Southwest</p> <p>AAS, Pueblo Community College</p>
<p>Connie Madsen</p> <p>Coordinator, Transfer & Graduation</p> <p>BS, University of Colorado-Colorado Springs</p>	<p>Lin Chang</p> <p>Principal Analytics Strategist</p>	<p>Stephanie Martinez</p> <p>Coordinator, Nursing Lab Simulation Tech</p>
<p>Cristina Guerra</p> <p>Retention Coach</p> <p>BS, Colorado State University</p>	<p>Linda Garcia</p> <p>Advisor, Financial Aid</p> <p>MBA, Adams State University</p> <p>BS, Colorado State University-Pueblo</p>	<p>Sterling Jenkins</p> <p>Coordinator, Public Safety, Operations, & Safety – Fremont Campus</p> <p>MA, University of Colorado-Colorado Springs</p> <p>BS, Colorado State University-Pueblo</p>
<p>Cruzita Tafoya</p> <p>Student Success Coach</p> <p>BS, Colorado State University-Pueblo</p>	<p>Lindsey Jaquez</p> <p>Coordinator, Science Lab</p>	<p>Steve Bigley</p> <p>Coordinator, Photo Imaging</p> <p>AA, Madison Area Technical College</p>
<p>Crystal Hernandez</p> <p>Student Success Coach</p> <p>BS, Colorado State University-Pueblo</p>	<p>Lucas Johnson</p> <p>Specialist, Senior Information Technology</p> <p>BS, Colorado State University-Pueblo</p>	<p>Steven Candelaria</p> <p>Advisor, Financial Aid</p>
<p>Crystal Tucker</p> <p>Coordinator, Online Media</p> <p>AAS, Pueblo Community College</p>	<p>Maria de la Cruz</p> <p>Academic Excellence Administrator</p> <p>BA, Adams State University</p> <p>AAS, Trinidad State Junior College</p>	<p>Summer Arledge</p> <p>Coordinator, Nursing Lab</p> <p>AAS, Central Methodist College</p>

<p>David Peralta</p> <p>Student Success Coach</p> <p>BS, Colorado State University-Pueblo</p> <p>AA, Pueblo Community College</p>	<p>Maria Iverson</p> <p>Transfer Coach</p>	
<p>David Siguenza</p> <p>Student Success Coach</p> <p>MBA, BSBA, Colorado State University-Pueblo</p>	<p>Mark Madic</p> <p>Manager, Southern Colorado Innovation Link</p> <p>BS, Colorado State University-Fort Collins</p>	<p>Toni Skilling</p> <p>Advisor, Financial Aid</p> <p>MBA, BS, Adams State University</p> <p>AGS, AA, Pueblo Community College</p>
<p>Delia Lechtenberg</p> <p>Academic Liaison</p> <p>MEd, BSBA, University of Phoenix</p> <p>RRT, AAS, Pueblo Community College</p>	<p>Mary Cristelli</p> <p>Manager, Recreation Center</p> <p>BS, Colorado State University-Pueblo</p>	<p>Tonya Roberts</p> <p>Coordinator, Go Zone Services</p> <p>BS, Colorado State University-Pueblo</p>
<p>Dominique Son</p> <p>Coordinator, Recruitment</p> <p>BA, Colorado State University-Pueblo</p>	<p>Mary Montgomery</p> <p>Senior Accountant</p> <p>MS, BS, University of Phoenix</p>	<p>Tracy Neve</p> <p>ICAP Coach</p> <p>MA, University of Colorado-Colorado Springs</p> <p>BS, Colorado State University-Pueblo</p> <p>BS, University of Northern Colorado</p>
<p>Douglas Parker</p> <p>Coordinator, Law Enforcement Academy-PCC Southwest</p> <p>BS, University of Colorado</p>	<p>Megan Moore</p> <p>Coordinator, Southern Colorado Innovation Link</p>	<p>Trevor Hardin</p> <p>Coordinator, Academic Advising</p> <p>BSW, Colorado State University-Pueblo</p>
<p>Dr. Robert Waggener</p> <p>Supervising Dentist</p> <p>DDS, Northwestern University</p> <p>BA, University of Colorado-Boulder</p>	<p>Melissa Santistevan</p> <p>Special Assistant, Executive Dean-PCC Fremont</p> <p>BS, Colorado State University-Pueblo</p>	<p>William Franklin</p> <p>Technical Systems Analyst</p> <p>AAS, Pueblo Community College</p>
<p>Duemece Aragon</p>		

Manager, Testing Center BS, Colorado State University- Pueblo		
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Faculty

<p>Adrian Banister</p> <p>Faculty – Business</p> <p>MBA, Colorado Technical University</p> <p>BSBA, Colorado State University- Pueblo</p> <p>AGS, Pueblo Community College</p>	<p>Gertrud "Marianne" Horvath</p> <p>Faculty/Coordinator – Health Information Technology</p> <p>BS, University of Colorado-Colorado Springs</p>	<p>Mary Satre</p> <p>Faculty/Coordinator -- RN/BSN</p>
<p>Albert Golob</p> <p>Faculty -- Electronics</p> <p>BS, Colorado State University - Pueblo</p>	<p>Gregg White</p> <p>Department Chair/Faculty – Machining/Welding</p> <p>ASC, Lower Colombia College</p>	<p>Matthew Grable</p> <p>Department Chair/Faculty – Law Enforcement Academy</p> <p>MS, Colorado State University-Global Campus</p> <p>BA, Colorado State University – Pueblo</p> <p>Certificate, Pueblo Community College</p>
<p>Alison Basta</p> <p>Faculty -- Surgical Technology</p> <p>AS, Colorado Technical University-Pueblo</p>	<p>James Cordova</p> <p>Department Chair/Faculty Automotive Collision</p> <p>Technology, Automotive Service Technology</p> <p>AAS, Pueblo Community College</p>	<p>Matthew Sterner-Neely</p> <p>Faculty – English/Communication</p> <p>MA, Southern New Hampshire University</p> <p>MEd, BS, Colorado State University- Pueblo</p> <p>AA, Pueblo Community College</p>
<p>Amanda Kuiken</p> <p>Faculty – Biology, Fremont</p> <p>MS, Colorado State University- Pueblo</p>	<p>James Jones</p> <p>Faculty-Welding</p>	<p>Megan Passig</p> <p>Faculty -- Dental Hygiene</p> <p>BA, AAS, Certificate, Pueblo Community College</p>

BA, University of Colorado-Boulder		
Amanda Mayes Faculty – Biology/Chemistry MS, BS, Colorado State University-Pueblo	Jamie Patti Faculty – English/Communication MA, BA, University of Colorado AA, Pueblo Community College	Michele Edwards Department Chair/Faculty – Cosmetology Certificate/License Cosmetology
Ann Oreskovich Department Chair/Faculty – Fine Arts & Humanities MA, Eastern Illinois University MFA, Washington University BA, Grinnell College	Janardan Pokharel Faculty – Mathematics & Physics MS, University of North Dakota	Michele Sweeney, M.D. Faculty – Emergency Medical Services MD, Case Western Reserve University BA, Grinnell College
Brett Pavlik Faculty – Welding BA, Fort Lewis College	Jeannie Almanza Faculty – Radiologic Technology MA, University of Phoenix BA, Ottawa University AAS, Hutchinson Community College & Area Vocational School	Michelina Paulek Faculty/Coordinator-Nursing, PCC Southwest BSN, Colorado Mesa University
Carter Smith Faculty/Coordinator – Emergency Medical Services, SCCC BS, Grand Canyon University AS, Pueblo Community College	Jeffrey Wingham Faculty – Biology DC, BS, Logan College of Chiropractic	Nathan Roskop Faculty-Computer Information Systems (AAS) MS, Worcester Polytechnic Institute BS, University of Denver
Catherine LaPorte Faculty/Clinical Coordinator -- Respiratory Care BAS, AAS, Pueblo Community College	Jennifer Geitner Coordinator/Faculty – Occupational Therapy MOT, Western New Mexico University BS, Colorado State University AAS, Pueblo Community College	Nicholas Alfonso Department Chair/Faculty – Science MS, BS, Colorado State University-Pueblo
Charles Bonfadini	Joan Pope	Pamela Graham

<p>Faculty – Psychology MA, BA, Adams State College</p>	<p>Faculty/Coordinator – Nursing, Fremont MSN, University of Central Florida BS, University of Colorado</p>	<p>Faculty – Cosmetology</p>
<p>Cheri Johnson Faculty – Nurse Aide, PCC Southwest AAS, Pueblo Community College Certificate, San Juan Basin Technical College</p>	<p>Johanna Parkhurst Faculty -- First-Year Experience</p>	<p>Patricia Rello Faculty/Clinical Coordinator – Radiologic Technology BS, University of Central Florida</p>
<p>Chip Nava Department Chair/Faculty – Mathematics MS, University of Northern Colorado BS, University of Southern Colorado</p>	<p>John Bradford (Brad) Bowers Faculty – History MA, Utah State University BA, Colorado State University- Pueblo</p>	<p>Raeann Quintana Faculty – Surgical Technology AS, Colorado Technical University</p>
<p>Claudia Estrada-Hickman Faculty/Coordinator -- Program Resource Nursing MSN, University of Phoenix BSN, University of New Mexico AND, New Mexico State University</p>	<p>John Duston Faculty – Auto Service Technology, Fremont AAS, Blair College</p>	<p>Renee Gust Faculty/Coordinator – Early Childhood Education MEd, BA, Northern Illinois University</p>
<p>Cody Hager Faculty – Welding, PCC Southwest</p>	<p>John Jakeman Faculty – Culinary Arts BS, The Art Institute of Pittsburgh AAS, Pueblo Community College</p>	<p>Richard "Todd" Jones Faculty-Emergency Medical Services BS, Colorado State University AA, Northeastern Junior College</p>
<p>Colleen Boyle Faculty – English MA, Roosevelt University BA, University of Illinois-Chicago</p>	<p>John Sinks Faculty – Welding AAS, Pueblo Community College</p>	<p>Richard Keilholtz Department Chair/Faculty – Social Sciences, Education, and Criminal Justice JD, Southern Illinois University- Carbondale</p>

		BA, University of Iowa
Craig Feigenbaum Faculty – Biology, PCC Southwest MS, Colorado State University	Joseph Jaburg Faculty – Automotive Technology, PCC Southwest	Robert Baker Faculty – Mathematics MA, BA, University of Montana BA Ed, University of Montana
Crystal Stark Faculty – Nursing, Fremont MSN, Regis University BSN, Colorado State University- Pueblo	Judy Costanza Faculty – Dental Hygiene BS, University of Missouri-Kansas City AAS, Pueblo Community College	Robert Reed Faculty – Welding, PCC Southwest
Daniel Vinci Faculty – Welding, Fremont AAS, Pueblo Community College	Kari Lee Faculty – English/Communication MA, Colorado State University BA, Colorado State University- Pueblo AA, Trinidad State Junior College	Roger Cox Department Chair/Faculty – Radiology Technology MS, Kaplan University BS, Franklin University AS, Pueblo Community College
Dawnelle Mathis Department Chair/Faculty – Emergency Medical Services MS, New York Chiropractic College BS, Sioux Falls College	Kathy Maurello Department Chair/Faculty – Medical Assisting BS, Colorado State University- Pueblo AAS, Pueblo Community College	Roger Pfannenschmid Faculty -- Automotive
Diana Montoya Department Chair/Faculty – Surgical Technology BS, Colorado Technical University AA, University of Phoenix	Kimberlee Ackles Faculty – Nursing, PCC Southwest BSN, University of Northern Colorado	Ronda Gasperetti Faculty -- Health Information Technology BSBA, Colorado Technical University
Donna Borders Department Chair/Faculty Nursing Assistant AS, Pueblo Community College	Kimberly Kushner Faculty – Science MS, BS, Colorado State University- Pueblo	Rosalia "Henri" Santiago Faculty – Science MS, BS, University of Southern Colorado

	AS, Pueblo Community College	
<p>Dr. Adam Zaleski</p> <p>Faculty -- Psychology</p> <p>PhD, Colorado State University</p> <p>BA, San Diego State University</p>	<p>Leroy Garcia</p> <p>Faculty – Emergency Medical Services</p> <p>MA, Ashford University</p> <p>BS, University of Phoenix</p> <p>AAS, Certificate, Pueblo Community College</p>	<p>Shanda Vidmar</p> <p>Faculty – Science</p> <p>MS, Colorado State University</p> <p>BS, University of Southern Colorado</p>
<p>Dr. Bobbie Sue Glandt</p> <p>Faculty – Physical Therapy Assistant</p> <p>DPT, Creighton University</p>	<p>Lisa Heckel</p> <p>Faculty– Physical Therapist Assistant</p> <p>BSBA, Colorado State University</p> <p>AA, Aims Community College</p> <p>AAS, Pueblo Community College</p>	<p>Shawna Shoaf</p> <p>Department Chair/Faculty – Communication/Digital</p> <p>Media/Broadcasting and Production Technology</p> <p>MA, Rocky Mountain College of Art and Design</p> <p>BS, Colorado State University-Pueblo</p> <p>AA, Collins College</p>
<p>Dr. Edwilyn O'Brien</p> <p>Faculty -- Nursing, PCC Southwest</p> <p>BSN, The University of New Mexico</p> <p>ADN, San Juan College</p>	<p>Lisa Stiner</p> <p>Faculty – Dental Hygiene</p> <p>BS, Colorado State University-Global Campus</p> <p>AAS, Pueblo Community College</p>	<p>Shawna Tracy</p> <p>Department Chair/Faculty – Respiratory Care</p> <p>MS, Northeastern University</p> <p>BS, Boise State University</p> <p>AAS, Pueblo Community College</p>
<p>Dr. Michael Payne</p> <p>Faculty – Mathematics</p> <p>PhD, The University of New Mexico</p> <p>MS, BA. University of Colorado-Colorado Springs</p>	<p>Lynne Ross, LMT</p> <p>Faculty/Coordinator – Human Anatomy Learning Ctr (HALC)</p> <p>MS, Auburn University</p> <p>BS, State University of New York College at Cortland</p>	<p>Timothy Gama</p> <p>Faculty – Computer Information Systems</p> <p>BS, Trinity College</p>
<p>Dr. Srinivas Nowduri</p> <p>Faculty, Computer Science (BAS)</p> <p>PhD, Indian Institute of Science</p>	<p>Margaret "Peggy" Oreskovich</p> <p>Department Chair/Faculty – Physical Therapist Assistant</p>	<p>Tina Sandoval</p> <p>Faculty – Mathematics</p> <p>MA, BS, Regis University</p>

MS, Kakatiya University	MS, Colorado State University- Global Campus BA, Illinois State University AAS, Pueblo Community College	
Dustin Dunaway Department Chair/Faculty – English/Communication MA, BA, University of Colorado- Colorado Springs	Marilyn Tabor Faculty – Nursing M.S., Colorado State University- Pueblo BSN, University of Phoenix	Travis Parkhurst Faculty – Philosophy MA, Yale Divinity School
Edward Tracey Faculty – Hospitality Studies AOS, The Culinary Institute of America	Marisa Camper Faculty – Dental Hygiene BS, Oregon Institute of Technology AAS, Pueblo Community College	Tricia Vigil Department Chair/Faculty – Occupational Therapy Assistant MBA, Colorado Technical University BS, Utica College of Syracuse University
Gayle Welch Faculty – English/Communication MA, University of Northern Colorado BA, University of Houston	Mary "Avia" Kallage Faculty – Astronomy and Geology MS, BA, University of Colorado- Colorado Springs	Wayne Schwarze Faculty – Machining AAS, Pueblo Community College
Genevieve Hackney Faculty – Nursing BSN, Mount Mercy University	Mary Nicks Department Chair/Faculty -- Nursing MSN, Walden University BSN, University of Southern Colorado	

Classified Employees

Stefana Adcock Administrative Assistant III	Amanda Kiefer Garcia Custodian I	Jamie Medina Administrative Assistant II
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Stephanie Albers Custodian I, Fremont	Mark Glaeser Utility Plant Operator I	Cynthia A. Miller Materials Handler III
Manuel Alonzo Structural Trades I	Tina T. Gold Accounting Technician III MBA, Colorado Technical University- Pueblo	Dwight Million Grounds & Nursery I
Ronald Griffin Materials Handler I AAS, Certificate, Pueblo Community College	Kari Monack Administrative Assistant III	Stephanie Armijo Custodian I
Benjamin Hahn IT Technician, Fremont	Carma Moore Administrative Assistant II, PCC Southwest	Gregory C. Becker Structural Trades II, PCC Southwest
William K. Hardwick Laboratory Coordinator I AAS, Pueblo Community College	Teresa Moore Administrative Assistant II, PCC Southwest	Gordon L. Bell Structural Trades II, Fremont
Julianna M. Mora Custodian I	Carol Hernandez Administrative Assistant III AAS, Pueblo Community College	Lisa A. Morales Administrative Assistant III BSBA, Adams State University AAS, Pueblo Community College
Shirley D. Carey Program Assistant I AAS, Pueblo Community College	Deborah K. Herrera Administrative Assistant III, Fremont AAS, Pueblo Community College	Marcella R. Noriega Administrative Assistant III
Shelly Carrillo Human Resources Specialist III BS, Colorado State University-Pueblo	Kiesa Howell Administrative Assistant III, PCC Southwest	Patricia O'Halloran Administrative Assistant III
Lorna Jackson Administrative Assistant II	Juan Casaus Custodian II	Julie C. Jimenez Program Assistant BS, Regis University

<p>Tracy Overton</p> <p>Library Technician II</p> <p>AGS, Pueblo Community College</p>	<p>Trina Jiron Belford</p> <p>Administrative Assistant III, Fremont</p> <p>BA, American Military University</p>	<p>Patricia Potter</p> <p>Administrative Assistant III</p> <p>AAS, Pueblo Community College</p>
<p>Deborah Clement</p> <p>Administrative Assistant III</p> <p>AAS, Pueblo Community College</p>	<p>Kathleen J. Kaufmann</p> <p>Administrative Assistant III</p>	<p>Clorinda N. Crespin</p> <p>Custodian I</p>
<p>Clayton LePlatt</p> <p>Police Officer I</p>	<p>Dawn Reitz</p> <p>Library Technician II</p>	<p>Amanda D. Dear</p> <p>Accounting Technician III</p>
<p>Leticia Lizardi</p> <p>Accounting Technician III</p> <p>AGS, Pueblo Community College</p>	<p>Jose J. Renner</p> <p>Police Officer I</p> <p>BS, Colorado State University-Global Campus</p> <p>AAS, Pueblo Community College</p>	<p>Dorothy DeHerrera</p> <p>Administrative Assistant II</p> <p>AAS, Pueblo Community College</p>
<p>William W. Lorimor</p> <p>Structural Trades II</p>	<p>Jimmie J. Sena</p> <p>Grounds & Nursery I</p>	<p>Lori C. Denney</p> <p>Human Resources Specialist III</p> <p>AAS, Pueblo Community College</p>
<p>Ynette Lucero</p> <p>Accounting Technician II</p>	<p>Arlene K. Dockter</p> <p>Custodian I</p>	<p>Natalie Lujan</p> <p>Administrative Assistant II</p>
<p>Whitney M. Strobel</p> <p>Administrative Assistant III, Fremont</p> <p>AGS, Pueblo Community College</p>	<p>Nicki Eastin</p> <p>General Labor I, PCC Southwest</p>	<p>Carolee Edmondson</p> <p>Accounting Technician III</p> <p>BS, Adams State University</p> <p>AAS, Pueblo Community College</p>
<p>Arthur A. Luna</p> <p>IT Professional I</p> <p>AAS, Pueblo Community College</p>	<p>Celestino "Ray" R. Torres</p> <p>Custodian I</p>	<p>Kent Ervin</p> <p>Police Officer I</p>
<p>Raymond Marquez</p> <p>Electrical Trades II</p>	<p>Janet Trevithick</p> <p>Administrative Assistant II</p>	<p>Brian K. Figueroa</p> <p>Structural Trades II</p>
<p>Teresa F. Mathews</p> <p>Administrative Assistant III</p>	<p>Carl M. Vasquez</p> <p>IT Professional I</p>	<p>Ann W. Flores</p> <p>Administrative Assistant II</p>

Henderson McClure Custodian I	Dennis Webster Custodian I	Bianca J. Flores Administrative Assistant III
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Emeritus Employees

<p>Deborah Borchers Hired: Aug. 21, 1989 Retired: July 31, 2013 Department: English/Communications Department Chair/Faculty MA, University of Arizona BA, Carleton College</p>	<p>W. Jeanne Gardner Hired: April 9, 1984 Retired: Dec. 31, 2015 Department: Library Services Director, Library Services MA, BA, University of Missouri</p>	<p>Lucinda "Cindy" Mihelich Hired: Jan. 9, 1990 Retired: Sept. 30, 2012 Department: Physical Therapy Assistant Faculty MEd, Colorado State University BS, University of Colorado-Boulder</p>
<p>Dr. Lana Carter Hired: Oct. 11, 1999 Retired: June 30, 2018 Department: Fremont Campus Executive Dean, Fremont Campus PhD, MS, Colorado State University</p>	<p>Madelyn Guzelian Hired: July 1, 1971 Retired: Feb. 20, 2004 Department: Business and Office Technology Faculty MEd, Colorado State University BA, University of Southern Colorado</p>	<p>Carol Montoya Hired: Dec. 1, 1990 Retired: Jan. 1, 2007 Department: Learning Center Director, Learning Center MA, BA, Adams State College</p>
<p>David Edwards Hired: Aug. 25, 1992 Retired: June 30, 2018 Department: Fine Arts & Humanities Department Chair/Faculty MEd, Central State University BS, Harding College</p>	<p>Terry Hawkins Hired: April 2, 1984 Retired: May 31, 2003 Department: Occupational Therapy Assistant Department Chair/Faculty MPH, OTR, University of Oklahoma Health Science Center BS, University of Kansas</p>	<p>Rebecca Robler Hired: Aug. 22, 1988 Retired: Aug. 31, 2007 Department: Occupational Therapy Assistant Department Chair/Faculty MEd, BS, OTR, Colorado State University</p>

<p>Elsa Eccles</p> <p>Hired: Jan 4, 2000</p> <p>Retired: July 31, 2018</p> <p>Department: Dental Hygiene</p> <p>Department Chair/Faculty</p> <p>MEd, Regis University</p> <p>BS, MS University of Phoenix</p> <p>AAS Pueblo Community College</p>	<p>Carol Himes</p> <p>Hired: Aug. 25, 1983</p> <p>Retired: May 31, 2015</p> <p>Department: Culinary Arts & Hospitality Studies</p> <p>Department Chair/Faculty</p> <p>MEd, Boston University</p> <p>BA, Cornell University</p>	<p>Boyd Rodman</p> <p>Hired: Aug. 19, 1999</p> <p>Retired: May 31, 2017</p> <p>Department: Computer Information Systems</p> <p>Department Chair/Faculty</p> <p>MS, BS, Regis University</p> <p>AAS Pikes Peak Community College</p>
<p>Gary Franchi</p> <p>Hired: Sept. 17, 1990</p> <p>Retired: Nov. 20, 2015</p> <p>Department: Marketing and Communications</p> <p>Coordinator, Public Relations</p> <p>BS, Central Michigan University</p>	<p>Gail Kingrey</p> <p>Hired: Aug. 24, 1987</p> <p>Retired: May 13, 2016</p> <p>Department: Science</p> <p>Faculty</p> <p>MS, New Mexico Institute of Mining & Technology</p> <p>BS, University of Southern Colorado</p>	<p>Florencio Ruiz</p> <p>Hired: Feb. 16, 1976</p> <p>Retired: Feb. 29, 2004</p> <p>Department: Business and Technology</p> <p>Senior Maintenance Mechanic</p> <p>AAS, Southern Colorado State College</p>
<p>Rita Friberg</p> <p>Hired: Oct. 1, 1994</p> <p>Retired: May 15, 2015</p> <p>Department: Management & Marketing</p> <p>Faculty</p> <p>MS, Colorado State University</p> <p>BS, Purdue University</p>	<p>Sara McKinnon</p> <p>Hired: Aug. 24, 1987</p> <p>Retired: June 30, 2014</p> <p>Department: English/Communications</p> <p>Faculty</p> <p>MA, BA, University of Illinois</p> <p>AA, Springfield College</p>	

Department Chairs

Program Name	Chair	Dean	AEA
Accounting, AAS		Jennifer Sherman	Maria delaCruz
Advanced Emergency Medical Technician	Dawn Mathis	Andrew Miller	Bonnie Housh
Advanced Emergency Medical Technology AAS	Dawn Mathis	Andrew Miller	Bonnie Housh
Advanced Paramedic Practitioner BAS	Dawn Mathis	Andrew Miller	Bonnie Housh
Air Conditioning Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Anthropology, AA (with Designation)	Rich Keilholtz	Young Kim	Jeff Kenney
Applied Technology, AAS		Jennifer Sherman	Maria delaCruz
Art History, AA (with Designation)	Shawna Shoaf	Young Kim	Jeff Kenney
Associate Degree Nursing	Eva Tapia		Nazalee Workman
Associate of Arts Degrees		Young Kim	Jeffrey Kenney
Associate of General Studies Degrees		Young Kim	Jeff Kenney
Associate of Science Degrees	Nick Alfonso	Young Kim	Jeff Kenney
Auto Collision Repair, AAS	James Cordova	Jennifer Sherman	Maria delaCruz
Automatic Transmissions Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Barbering Certificate	Michele Edwards	Andrew Miller	Bonnie Housh
Basic Fire Science Mini-Certificate		Andrew Miller	Bonnie Housh
Basic Firefighter - Structural (Fire Academy)		Andrew Miller	Bonnie Housh
Basic Wildland Firefighter Mini-Certificate		Andrew Miller	Bonnie Housh
Beginning Production and Baking Mini-Certificate	Mo Montgomery	Jennifer Sherman	Maria delaCruz
Beginning Veterinary Assistant		Jennifer Sherman	Maria delaCruz
Behavioral Health AAS		Andrew Miller	Bonnie Housh
Biology, AS (with Designation)	Nick Alfonso	Young Kim	Jeff Kenney

Body Customizing Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Bookkeeping Certificate		Jennifer Sherman	Maria delaCruz
Broadcasting & Production Technology Certificate	Shawna Shoaf	Young Kim	Jeff Kenney
Business Fundamentals Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Business Management Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Business Management, AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Business Office Professional	Mike Krakow	Jennifer Sherman	Maria delaCruz
Business Ownership AAS		Jennifer Sherman	Maria delaCruz
Business Ownership Certificate		Jennifer Sherman	Maria delaCruz
Business, AA (with Designation)		Jennifer Sherman	Maria delaCruz
CAD/CAM Mini-Certificate	Gregg White	Jennifer Sherman	Maria delaCruz
Chemistry, AS (with Designation)	Nick Alfonso	Young Kim	Jeff Kenney
CNC Mini-Certificate	Gregg White	Jennifer Sherman	Maria delaCruz
Collision Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Communication, AA (with Designation)	Dustin Dunaway	Young Kim	Jeff Kenney
Computed Tomography, BAS	Roger Cox	Andrew Miller	Bonnie Housh
Computer Information Systems, AGS (with Transfer Articulation Agreement)	Mike Krakow	Jennifer Sherman	Maria delaCruz
Computer Science, (General AS degree with focus of study)	Mike Krakow	Jennifer Sherman	Maria delaCruz
Construction Technician Basic Mini-Certificate	Gregg White	Jennifer Sherman	Maria delaCruz

Cosmetology Barber Crossover	Michele Edwards	Andrew Miller	Bonnie Housh
Cosmetology Certificate	Michele Edwards	Andrew Miller	Bonnie Housh
Cosmetology, AAS	Michele Edwards	Andrew Miller	Bonnie Housh
Criminal Justice, AA (with Designation)	Rich Keilholtz	Young Kim	Jeff Kenney
Criminal Justice, AGS (with Transfer Articulation Agreement)	Rich Keilholtz	Young Kim	Jeff Kenney
Culinary Arts Management, AAS	Mo Montgomery	Jennifer Sherman	Maria delaCruz
Culinary Arts Production, AAS	Mo Montgomery	Jennifer Sherman	Maria delaCruz
Custom Painting Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Cyber Defense Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Dental Hygiene, AAS	Linda Blasi	Andrew Miller	Bonnie Housh
Dental Hygiene, BAS	Linda Blasi	Andrew Miller	Bonnie Housh
Digital Video Editing Certificate	Shawna Shoaf	Young Kim	Jeff Kenney
Dining Service Mini-Certificate	Mo Montgomery	Jennifer Sherman	Maria delaCruz
Early Childhood Education Director Certificate	Renee Gust	Young Kim	Jeff Kenney
Early Childhood Education, AAS	Renee Gust	Young Kim	Jeff Kenney
Early Childhood Entry Level Mini-Certificate	Renee Gust	Young Kim	Jeff Kenney
Early Childhood Teacher Certificate	Renee Gust	Young Kim	Jeff Kenney
Early Childhood Teacher Education, AA (with Designation)	Renee Gust	Young Kim	Jeff Kenney
Economics, AA (with Designation)		Jennifer Sherman	Maria delaCruz
Electromechanical Technology Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Electromechanical Technology, AAS	Catlin Davis	Jennifer Sherman	Maria delaCruz

Elementary Teacher Education, AA (with Transfer Articulation Agreement)	Renee Gust	Young Kim	Jeff Kenney
Emergency Medical Services, AAS	Dawn Mathis	Andrew Miller	Bonnie Housh
Emergency Medical Technician Mini-Certificate	Dawn Mathis	Andrew Miller	Bonnie Housh
EMT Enhanced Certificate	Dawn Mathis	Andrew Miller	Bonnie Housh
EMT Intermediate Option Certificate	Dawn Mathis	Andrew Miller	Bonnie Housh
Engine and Electrical Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
English, Literature Emphasis, AA (with Designation)	Dustin Dunaway	Young Kim	Jeff Kenney
Esthetician Certificate	Michele Edwards	Andrew Miller	Bonnie Housh
Fire Investigator I Mini-Certificate		Andrew Miller	Bonnie Housh
Fire Officer I Mini-Certificate		Andrew Miller	Bonnie Housh
Fire Prevention & Public Education Mini-Certificate		Andrew Miller	Bonnie Housh
Fire Science Technology, AAS		Andrew Miller	Bonnie Housh
Firefighter Academy Structural Mini-Certificate		Andrew Miller	Bonnie Housh
Firefighter I Mini-Certificate		Andrew Miller	Bonnie Housh
First Year Nursing - PN Certificate Option	Eva Tapia		Nazalee Workman
Fitter or Combination Welder Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Forensic Computing Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Fuels and Emissions Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
General Automotive Technology, AAS	James Cordova	Jennifer Sherman	Maria delaCruz
General Machining Technology Certificate	Gregg White	Jennifer Sherman	Maria delaCruz
Geology, AS (with Designation)	Nick Alfonso	Young Kim	Jeff Kenney
Graphic Design, AAS	Shawna Shoaf	Young Kim	Jeff Kenney

Hairstylist Barber Crossover	Michele Edwards	Andrew Miller	Bonnie Housh
Hairstylist Certificate	Michele Edwards	Andrew Miller	Bonnie Housh
Health Information Technologies, Management & Support, AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Health Information Technologies, Medical Coding Emphasis, AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Health Information Technologies, Network Security/Technical Support, AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Healthcare Information Systems AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Healthcare Information Systems, AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
High Pressure Pipe Welder Mini-Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
History, AA (with Designation)	Rich Keilholtz	Young Kim	Jeff Kenney
HIT Management & Support Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
HIT Medical Coding AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
HIT Medical Coding Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
HIT Network Security/Technical Support Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Hospitality Sales and Marketing Certificate	Mo Montgomery	Jennifer Sherman	Maria delaCruz
Hospitality Studies, AGS (with Transfer Articulation Agreement)	Mo Montgomery	Jennifer Sherman	Maria delaCruz
Industrial Technology Maintenance Level I Certificate	Gregg White	Jennifer Sherman	Maria delaCruz
Industrial Technology Maintenance Level II Mini-Certificate	Gregg White	Jennifer Sherman	Maria delaCruz
Industrial Technology Maintenance, AAS	Gregg White	Jennifer Sherman	Maria delaCruz

Infant Toddler Supervisor Mini-Certificate	Renee Gust	Young Kim	Jeff Kenney
Information Assurance Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Intermediate Production Mini-Certificate	Mo Montgomery	Jennifer Sherman	Maria delaCruz
Introduction to Agriculture		Jennifer Sherman	Maria delaCruz
Introduction to Health Information Technology	Mike Krakow	Jennifer Sherman	Maria delaCruz
Introduction to Media Communications Mini-Certificate	Shawna Shoaf	Young Kim	Jeff Kenney
IT Industry Certification Preparation CER	Mike Krakow	Jennifer Sherman	Maria delaCruz
IT Systems Administration AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Law Enforcement Academy Certificate	Matt Grable	Andrew Miller	Bonnie Housh
Law Enforcement, AAS	Matt Grable	Andrew Miller	Bonnie Housh
Leadership Studies Mini-Certificate		Jennifer Sherman	Maria delaCruz
Library Technician Certificate	Renee Gust	Young Kim	Jeff Kenney
Library Technician, AAS	Renee Gust	Young Kim	Jeff Kenney
Local Anesthesia and Nitrous Oxide/Oxygen Sedation Mini-Certificate	Linda Blasi	Andrew Miller	Bonnie Housh
Low Pressure Pipe Welder Mini-Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Machining Technology, AAS	Gregg White	Jennifer Sherman	Maria delaCruz
Machining Technology, Inspection Certificate	Gregg White	Jennifer Sherman	Maria delaCruz
Magnetic Resonance Imaging, BAS	Roger Cox	Andrew Miller	Bonnie Housh
Manicurist Certificate	Michele Edwards	Andrew Miller	Bonnie Housh
Manual Machining Certificate	Gregg White	Jennifer Sherman	Maria delaCruz

Manual Transmissions Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Mass Communications, AGS (with Transfer Articulation Agreement)	Shawna Shoaf	Young Kim	Jeff Kenney
Mathematics, AS (with Designation)	Chip Nava	Young Kim	Jeff Kenney
Mechanical and Electrical Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Med Prep for Nursing Assistant Mini-Certificate		Andrew Miller	Bonnie Housh
Medical Assistant Certificate	Kathy Maurello		Nazalee Workman
Medical Assistant, AAS	Kathy Maurello		Nazalee Workman
Medical Coding Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Medical Sonography, AAS	Roger Cox	Andrew Miller	Bonnie Housh
MS Office Applications Mini-Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Networking Cyber Security, AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Networking Mini-Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Nonstructural Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Nursing Aide Mini-Certificate	Donna Borders		Nazalee Workman
Nursing, LPN to ADN, AAS	Eva Tapia		Nazalee Workman
Occupational Therapy Assistant, AAS	Tricia Vigil	Andrew Miller	Bonnie Housh
Paramedic Option Certificate	Dawn Mathis	Andrew Miller	Bonnie Housh
Paramedic Prep	Dawn Mathis	Andrew Miller	Bonnie Housh
Paramedic to Associate Degree Nursing	Eva Tapia	Andrew Miller	Bonnie Housh
Pharmacy Technician Certificate		Andrew Miller	Bonnie Housh
Philosophy, AA (with Designation)	Dustin Dunaway	Young Kim	Jeff Kenney

Phlebotomy Technician Mini-Certificate		Andrew Miller	Bonnie Housh
Photovoltaic Panel Installation CER	Gregg White	Jennifer Sherman	Maria delaCruz
Physical Therapist Assistant, AAS	Peggy Oreskovich	Andrew Miller	Bonnie Housh
Plastics Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Police Science Certificate	Matt Grable	Andrew Miller	Bonnie Housh
Political Science, AA (with Designation)	Rich Keilholtz	Young Kim	Jeff Kenney
Practical Nursing Certificate	Eva Tapia		Nazalee Workman
PRACTICAL NURSING EXIT OPTION CERTIFICATE	Eva Tapia		Nazalee Workman
Pre-Engineering, AS (with Designation)	Nick Alfonso	Young Kim	Jeff Kenney
Production Technician Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Professional Communication Certificate	Shawna Shoaf	Young Kim	Jeff Kenney
Programming Mini-Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Psychiatric Technician Certificate			Nazalee Workman
Psychology, AA (with Designation)	Rich Keilholtz	Young Kim	Jeff Kenney
Public Health, Dwd	Rich Keilholtz	Young Kim	Jeff Kenney
Radiologic Technology BAS	Roger Cox	Andrew Miller	Bonnie Housh
Radiologic Technology BAS (Total Credits: 120)	Roger Cox	Andrew Miller	Bonnie Housh
Radiologic Technology, AAS	Roger Cox	Andrew Miller	Bonnie Housh
Refinishing Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Respiratory Therapy, AAS	Shawna Tracy	Andrew Miller	Bonnie Housh
Respiratory Therapy, BAS	Shawna Tracy	Andrew Miller	Bonnie Housh
RN to BSN	Eva Tapia		Nazalee Workman

Secure Software Development BAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Security Mini-Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Social Work, AA (with Transfer Articulation Agreement)	Rich Keilholtz	Young Kim	Jeff Kenney
Sociology, AA (with Designation)	Rich Keilholtz	Young Kim	Jeff Kenney
Software Development and Security AAS	Mike Krakow	Jennifer Sherman	Maria delaCruz
Software Development Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
SQL Coding Certificate	Mike Krakow	Jennifer Sherman	Maria delaCruz
Steering and Suspension/Brakes Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Structural Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Structural Welder Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Structural Welding Intermediate Mini-Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Structural Welding Introduction Mini-Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Studio Art, AA (with Designation)	Shawna Shoaf	Young Kim	Jeff Kenney
Surgical Technology, AAS	Diana Montoya		Nazalee Workman
Upholstery Mini-Certificate	James Cordova	Jennifer Sherman	Maria delaCruz
Vehicle Extrication Mini-Certificate			Bonnie Housh
Web Design and Development, AAS	Shawna Shoaf	Young Kim	Jeff Kenney
Web Design Certificate	Shawna Shoaf	Young Kim	Jeff Kenney
Welding Certificate	Catlin Davis	Jennifer Sherman	Maria delaCruz
Welding, AAS	Catlin Davis	Jennifer Sherman	Maria delaCruz

Wildland Firefighter Mini-Certificate			Bonnie Housh
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Bachelor Applied Science

Description:

The Bachelor of Applied Science degree is the designated degree for flexible baccalaureate programs that are designed to accommodate the unique demands for entry and advancement within specific workforce sectors. BAS programs provide degree completion opportunities for students from a variety of educational backgrounds, but primarily those with Associate of Applied Science (AAS) degrees or the equivalent. BAS degrees typically build on the curriculum requirements for an AAS degree. As such, BAS degrees are often considered to be stackable degrees, meaning that all of the requirements for the AAS degree are either included in, or receive full recognition and credit within the BAS program requirements. Consequently, both the technical and general education courses completed in an AAS degree count fully toward BAS degree requirements. Because the general education requirements often vary considerably for AAS degrees due to the targeted focus of their career and technical fields, PCC provides great flexibility to faculty in structuring AAS degree general education requirements. It is the intent of the general education philosophy for BAS degrees that all general education courses successfully completed by students in their AAS degrees count fully toward the overall BAS general education requirements.

The Bachelor of Applied Science degree is designed to provide a four-year degree in a true 2+2 manner for students who already have an Associate of Applied Science degree and are ready to take on more technical responsibility. This is a popular option for workforce development and advancement. This degree provides students with an academic training to further their careers.

Each BAS completion degree will have 120 credit hours. Thirty of these credits must be taken in residence at PCC per the Higher Learning Commission (HLC) accreditation requirements. Admission criteria may change depending on the degree and academic advising is key to understanding the requirements for admission.

Prerequisites:

Completion of an Associate of Applied Science (AAS) degree in the appropriate field of study.

Requirements for the BAS degree is detailed in this section of the catalog. PCC offers the following BAS degree:

Dental Hygiene, BAS

Radiologic Technology (Section)

 Computed Tomography, BAS Option

 Magnetic Resonance Imaging, BAS

Degree and Certificate Programs

PCC grants Bachelor of Applied Science (BAS), Associate of Arts (AA), Associate of Science (AS), Associate of General Studies (AGS) and Associate of Applied Science (AAS) degrees. PCC also grants Certificates of Completion (CERT).

PCC's programs are approved by the Colorado Department of Higher Education (CDHE), which approves degrees, and by the Colorado Community College System (CCCS), which approves certificates. The PCC Curriculum and Academic Standards Committee reviews and approves new programs or changes to existing programs before they are forwarded to these agencies for approval.

Each program requires a major area of concentration comprising a defined sequence of courses. An associate degree requires a minimum of 60 semester hours and a certificate requires a minimum of two courses.

General education courses are a part of every degree program regardless of major; these courses impart common knowledge, intellectual concepts and attitudes that every educated person should possess.

The general education courses for the AA, AS, generalist AGS and AAS degrees are identified in the general education curriculum of each of those degrees. The AGS technical pre-professional transfer degrees in Computer Information Systems, Criminal Justice and Mass Communications have particular general education requirements within each degree.

For AGS degrees, no designation of an emphasis area or concentration may appear on a transcript or diploma, other than "Liberal Studies."

Gainful Employment Information

The US Department of Education requires disclosure of information for any financial aid eligible program that "prepares students for gainful employment in a recognized occupation."

Technology Recommendations

Internet

- A Broadband (Cable, DSL, Fiber or LAN) connection at home is recommended (but not required) for optimal student experience. A broadband Internet connection with a connection speed of 1.5 MB/s or higher is recommended
- The use of satellite and cellular connections may result in slowness or errors (timeouts, access problems) when accessing the classroom and course materials.
- The use of public access computers and internet (for example, at libraries, public locations) may result in slowness or errors (timeouts or access problems) when accessing some classroom and course materials. Public access computers may not permit any access to certain course materials or systems due to security limitations.
- PCC provides free Internet access on campus to all PCC Students who bring their own computers on campus.
- Limited access to PCC computers is provided in some classrooms.

Computer

Every student is encouraged to bring a laptop computer (Windows or MAC Based) to campus for use in class.

Computer Specifications*:

- If at all possible use a computer that is less than 5 years old
- Intel Core i3 or AMD A8 or higher
- Processor speed: 2 GHz or faster
- RAM: 4 GB or greater
- Monitor and video card with 1024x768 or greater resolution.
- A web camera capable of video web conferencing
- Microphone and headset recommended but not required

*Program-specific requirements may be required for your degree program. Please see below.

Software and Applications

Other Required Software

- Adobe Acrobat Reader
- Adobe Flash Player
- Microsoft Silverlight player
- Microsoft Office 2010 or higher (Microsoft Office 365 is provided to all current PCC students. Students can download the current version of office to a personal computer.)
- Local administrative privileges to the operating system may be required
- A current antivirus application that is updated and scanned regularly

Mobile Recommendations

Courses at Pueblo Community College may be enhanced with media and applications that can be downloaded to your mobile device. Additionally, your course work may involve using applications on these devices. Therefore, it is recommended that students own a mobile device so that they may take advantage of these offerings. These devices will provide access to enhanced learning opportunities, but should not replace more suitable devices for productivity. Devices that satisfy this recommendation are:

Android

- Versions 2.2 or later
- 16GB or higher

iPhone

- Current OS version or one version previous; minimum 16GB
- Original (first generation) and 3G/4G iPhones cannot be supported

iPad

- Current generation or one generation previous; 16GB or higher
- iPad Mini
- 16GB or higher

Microsoft Surface

- Current generation or one generation previous

All Products

Students who choose to use systems or applications other than those listed do so knowing that faculty may be expecting and using the software listed above. It is and will be the student's responsibility to create and distribute correspondence and shared files in a format that can be read by faculty and fellow classmates.

Technology changes rapidly – as a result, these recommendations are subject to change without notice. It is the student's responsibility to continually check the PCC portal for changes to the above recommendations.

Program Specific Requirements

Math Courses

All students taking a math class are required to bring a computer to class meeting the above specifications.

Computer Aided Design Courses

Students are encouraged to have a MAC or PC meeting the specifications listed on the System requirements for AutoCAD 2015 web page.

Media Communications Courses

Students are encouraged to have a MAC or PC meeting the specifications listed on the Creative Cloud System requirements web page.

Nursing Programs on all Campuses

All students accepted into the Nursing Program are required to have a computer to bring to class that meets the above requirements. All Nursing Exams in all nursing courses will be administered electronically.

* Program specific requirements may be required for your degree program.

Legend of the Course Descriptions

The credit courses offered by the College are listed in alphabetical order by discipline/program area. A general description of the content of each course is included. Special Topics are courses that are numbered 075-077, 175-177 and 275-277 provide students with a vehicle to pursue in-depth exploration of special topics of interest. The credits and grade scheme will vary depending on course content. The description and outline is approved by the dean and filed with the registrar.

Instructional Course Type Guideline

Note: The CDHE (Colorado Department of Higher Education, formerly Colorado Commission on Higher Education) definition for a base contact hour is 750 minutes of section meeting time. CDHE has minimum guidelines expressing the minimum number of weekly contact hours expected to receive 1 credit. This varies depending upon the instruction type (e.g., lecture, lab). For example, a 3-credit-hour lecture course would need to meet the equivalent of three 50-minute blocks each week (for a total of 2,250 minutes per semester.)

The US Department of Education Higher Education Re-authorization Act requires institutions to define expectations for out-of-class student work for each credit hour. CCCS has defined the expectation as a minimum of two hours of out of class student work each week for one hour of classroom or direct faculty instruction time.

Course Type	Banner Codes	Description	Notes	Minimum Guidelines for Weekly Contact Hours Expected to Receive 1 Credit	Minimum Guidelines For Out-of-Class Study Expectation Per 1 Credit
Clinical		Participation in client and client-related services that are an integral part of an academic program. Clinical instruction occurs in or outside an institutional setting and involves work with clients who receive professional services from students serving under direct supervision of a faculty member and/or approved member of the agency staff.	Course maximum enrollments may vary according to accreditation standards, pedagogical limitations, level of offering, availability of clinical sites, etc.	2.0 Hours = 1 credit (2:1) Contact Ratio	4 hours
Directed Study		Faculty and student negotiate an individualized plan of study.	A Directed Study is not to replace an existing course. If a course is offered on an individualized basis the faculty and student complete a Non-Scheduled course form.	0.75 Hour = 1 credit (.75:1) Contact Ratio	1.5 hours
Field Instruction		Instructional activities conducted by the faculty and designed to supplement and/or extend an individual course or classroom experience.		2.5 Hours = 1 credit (2.5:1) Contact Ratio	5 hours
Internship		Applied and supervised field-based learning experience where students gain practical experience following a negotiated and/or directed plan of study.	Student may or may not be paid for Internship.	3.0 Hours = 1 credit (3:1) Contact Ratio	N/A
Lab		Instructional activities conducted by the faculty	Course maximum enrollments may vary	2.0 Hours = 1 credit	4 hours

		which require student participation, experimentation, observation or practice.	according to accreditation standards, pedagogical limitations, level of offering, availability of laboratory stations, equipment, etc.	(2:1) Contact Ratio	
Lecture		Faculty member responsible for delivery and discussion of learning material and related instructional activities.	Course maximum enrollments may vary by level, discipline, classroom availability, course delivery format (online), etc.	1.0 Hour = 1 credit (1:1) Contact Ratio	2 hours
Physical Educ./Recreation		Participation in or the performance of some form of physical activity. Knowledge associated with the proper performance of the activity is presented.	Course maximum enrollments may vary by level of instruction, type of activity, safety considerations, availability of facilities, etc.	2.0 Hours = 1 credit (2:1) Contact Ratio	4 hours
Practicum		Practical student work under the supervision of a faculty member or under supervision of a professional in the student's field and regular consultation with faculty member.		2.0 Hours = 1 credit (2:1) Contact Ratio	4 hours
Private Music Instruction		Formal presentation in a one-to-one relationship between student and instructor.	NASM guidelines list .5 = 2 credits (.25 = 1 hour)	0.25 Hour = 1 credit (.25:1) Contact Ratio	0.5 hours
Seminar		A highly focused course that may include student presentations and discussions of reports based on literature, practice, problems, or research (e.g., a capstone course)	Typically at the upper division or graduate level.	1.0 = 1 credit (1:1) Contact Ratio	2 hours
Lab/CTE		Instructional activities involving training for employment with an active faculty teaching role		1.5 Hours=1 credit (1:5) Contact Ratio	3 hours

Student Classroom Observation		Teacher candidates observe, participate in, analyze and reflect on issues in education.		2.0 Hours = 1 credit (2:1) Contact Ratio	4 hours
Studio		Lab-type activities conducted by faculty (e.g., music ensembles, art studio, theatrical productions, etc.)		2.0 = 1 credit (2:1) Contact Ratio	4 hours
Online Delivery				Follows Same Guidelines as Traditional Delivery	
Hybrid Delivery				Follows Same Guidelines as Traditional Delivery	

Most courses in the following sections have prerequisites. Prerequisites are requirements that you must complete before enrolling in the course. You can satisfy prerequisites in one of two ways: 1) by completing prerequisite courses, or 2) by attaining assessment scores that place you ABOVE the listed prerequisite course's skill level.

Restricted Courses

Restricted courses indicate specific course offerings that are limited offerings due to location restrictions. These courses will be indicated with two asterisks (**). Completion of a degree and/or certificate as listed on Degree and Certificate Programs is not impacted by restricted courses as the requirements do not include such courses.

GT Pathways Courses

In December 2005, the Colorado Commission on Higher Education established a statewide transfer policy for general education course credits. This policy is also known as GT Pathways which are listed in the table on CCCS Guaranteed Transfer (GT) - Pathways Courses under the Degree/Certificate programs section. Although Pueblo Community College does not offer all of the courses listed on CCCS Guaranteed Transfer (GT) - Pathways Courses if you are transferring any of these courses to Pueblo Community College from an accredited post-secondary institution, these courses will be accepted at Pueblo Community College.