CATALOG

2023-2024

PIKES PEAK
STATE COLLEGE

PIKES PEAK STATE COLLEGE

Thank you for your interest in Pikes Peak State College.

From start to finish this catalog will be your guidebook. It contains everything you need to know about PPSC.

If you would like to know more about the College or would like a tour of any of our campuses, just give our Student Services Center a call at (719) 502-2000 or toll free at 866-411-7722.

Main Locations

Centennial Campus
5675 South Academy Boulevard
Colorado Springs, CO 80906

Downtown Campus
100 West Pikes Peak Avenue
Colorado Springs, CO 80903

Rampart Range Campus
2070 Interquest Pkwy
Colorado Springs, CO 80921

Additional Locations

Aspen Valley Ranch
1150 South West Road
Woodland Park, CO 80863

Center for Healthcare Education and Simulation Campus
1850 Cypress Semi Drive
Colorado Springs, CO 80921

Technical Education Campus (TEC)
855 Aeroplaza Drive
Colorado Springs, CO 80916

UCHealth Community Education Center
2050 KidsKare Point
Colorado Springs, CO 80910

Additional Locations for Concurrent Enrollment only

Colorado Springs Early College
4405 N. Chestnut Street, Suite D
Colorado Springs, CO 80907

Early College High School
2115 Afton Way
Colorado Springs, CO 80909

Harrison High School
2755 Janitell Road
Colorado Springs, CO 80906

Sierra High School
2250 Jet Wing Drive
Colorado Springs, CO 80916

Military Sites

Fort Carson Education Center
Building 1117, Room 117
1675 Long Street
Fort Carson, CO 80913
719-502-4200

Peterson Space Force Base
Education Center
301 West Stewart, Building 1141, Room 112
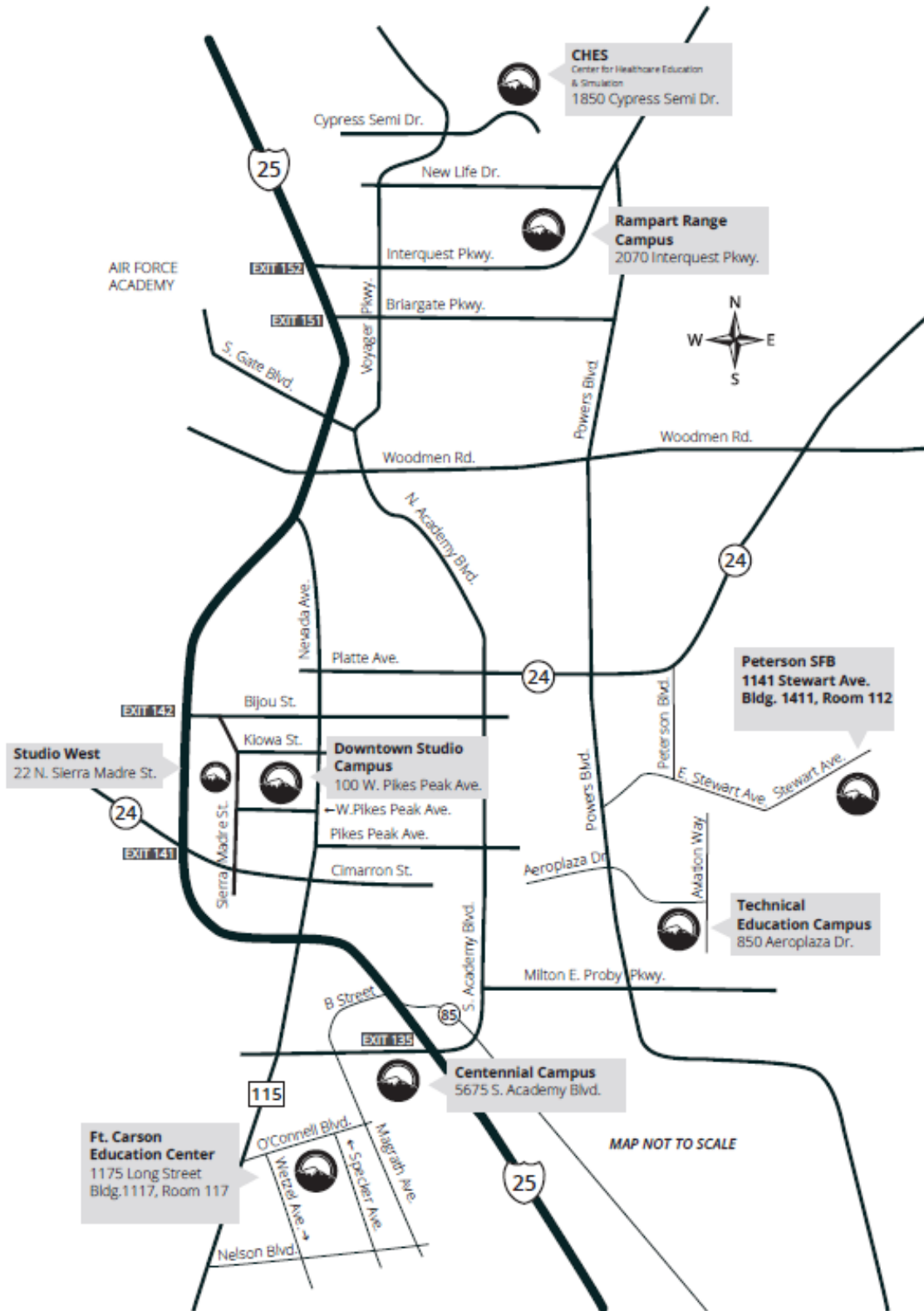PSFB, CO 80914
719-502-4300

719-502-2000 or 800-456-6847
719-358-2453 [video phone for hearing impaired]
www.pikespeak.edu
All locations and military sites listed above have been approved by the Higher Learning Commission.

Campus Map

Pikes Peak State College has three full-service campuses to serve the north, central and south areas of the city. Each offers a full array of academic programs, and enrollment and student services. Rampart Range Campus houses health profession educational programs.

The Downtown Campus is a center for the fine arts and dance. Centennial Campus offers all academic disciplines as well as the occupational and technical programs. PPSC also has branch locations at two military education centers.

About this Catalog

Accreditation

The College is accredited by the Higher Learning Commission.

Changes

Catalog information is subject to change without notice. Published changes, including courses and programs approved after the catalog deadline, are available in the Student Services Centers at all campuses and on the PPSC website. This catalog takes effect at the beginning of each academic year's summer registration.

Nondiscrimination Statement

Pikes Peak State College does not unlawfully discriminate against individuals affiliated with the College on the basis of sex/gender, race, color, age, creed, national or ethnic origin, ancestry, physical or mental disability, veteran or military status, pregnancy status, religion, genetic information, gender identity, or sexual orientation, or any other protected category under applicable local, state, or federal law (also known as "civil rights laws"), including protections against retaliation and for those opposing discrimination or participating in any grievance process on campus or within the Equal Employment Opportunity Commission or other human rights agencies, in its employment practices or educational programs and activities.

The College has designated Kim H. Hennessy, Vice President of Human Resource Services, as its Affirmative Action Officer/Equal Opportunity Coordinator/Title IX Coordinator with the responsibility to coordinate its civil rights compliance activities and grievance procedures. For information, contact Kim H. Hennessy, Vice President of Human Resource Services, at 5675 South Academy Blvd, Colorado Springs, CO 80906 or at (719) 502-2600.

You may also contact the Colorado Community College System Office, 9101 East Lowry Blvd., Denver, CO 80230, (303) 620-4000; or the Colorado Civil Rights Division, Colorado Springs, CO, (719) 633-7518; or the U.S. Equal Employment Opportunity Commission, Denver, CO, 1-800-669-4000 (Voice) or 1-800-669-6820 (TTY); or the Office for Civil Rights, U.S. Department of Education, Region VIII, Federal Office Building, 1244 North Speer Boulevard, Suite 310, Denver, CO 80204, telephone (303) 844-3417.

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ALL ABOUT PPSC

In This Section

History of the College

Pikes Peak State College was established by a legislative act in 1968 and was then called El Paso Community College. When the College opened its doors in September 1969, more than 800 students attended classes in rented buildings in Old Colorado City on the west side of town. Enrollment grew rapidly, and the need for permanent facilities soon became apparent. The full-service Centennial Campus was built at the south end of Colorado Springs in 1978. In that same year, the name of the College was officially changed to Pikes Peak Community College.

The Pikes Peak Region has experienced significant population growth during the last several decades, driving the community need for expanded educational services. This demand resulted in the opening of the Downtown Campus in central Colorado Springs in 1986 and the Rampart Range Campus in the north end of the city in 1998.

In April of 2022, Gov. Polis signed a bill officially changing the name of the institution to Pikes Peak State College. The new name reflected an expansion into four-year degrees and a more aspirational posture.

Today, PPSC has grown and expanded to become the largest postsecondary educational institution in Colorado Springs and offers the most widely accessible and affordable education in the region. Serving the residents of El Paso, Teller, and Elbert Counties, PPSC offers more than 125 programs of study in transfer liberal arts and sciences areas and career and technical training.

Currently, Pikes Peak Community College helps over 18,000 people each year begin their education, advance their careers, and enrich their lives.

Vision Statement

Students succeed at Pikes Peak State College.

Mission Statement

Our mission is to provide high quality educational opportunities accessible to all, with a focus on student success and community needs, including:

- Occupational programs, including certificates, associate and bachelor degrees, for youth and adults in career and technical fields;

- Two-year transfer educational programs to qualify students for admission to the junior year at other colleges and universities; and
- A broad range of personal, career, and technical education for adults.

Values

We value a community built on learning, mutual respect, and diversity. We demonstrate these values in the following ways:

- Teaching and Learning: Our primary commitment is to student learning, success, and achievement, while promoting open and universal access to an affordable education and affirming the importance of our facilities and learning environments.
- Mutual Respect and Accountability: Because people are our greatest resource, we foster a culture rooted in civility, mutual trust, and support, and hold ourselves accountable for our decisions and actions.
- Community and Diversity: We engage and support our community while embracing diversity, as it enriches lives and educational experiences.

Required Disclosures

The College is required to disclose, on a yearly basis, certain types of information to all prospective and current students. These items include

- the consequences of alcohol and drug violations on page 33
- the manner in which the College calculates refunds and repayments as it is stated in this catalog on page 15 and as stated in the Financial Aid Handbook available in the Student Services Centers or online at www.pikespeak.edu.
- the graduation rates for the College available www.pikespeak.edu/diversity-equity-inclusion/dei-student-graduation-information.

Faculty and Instructor Resource Guide

The Faculty and Instructor Resource Guide contains pertinent information affecting faculty members, current through the date of its issuance. To the extent that any provision of the Guide is inconsistent with State or Federal law, State Board for Community Colleges and Occupational Education Policies (BPs) or Colorado Community College System President's Procedures (SP's), the law, BPs and SPs shall supersede and control. BPs and SPs are subject to change throughout the year and are effective immediately upon adoption by the Board or System President, respectively. Faculty members are expected to be familiar with and adhere to the BPs, SPs as well as College directives, including but not limited to the contents of the Guide.

To access BPs and SPs, see www.cccs.edu/about-cccs/state-board/policies-procedures.

Nothing in the Guide is intended to create (nor shall be construed as creating) an express or implied contract or to guarantee employment for any term or to promise that any specific process, procedures, or practice will be followed, or benefit provided by the College. The College reserves the right to modify, change, delete or add to the information in the Guide as it deems appropriate.

PPSC All Student Handbook

The PPSC All Student Handbook contains pertinent information affecting students, current through the date of its issuance. To the extent that any provision of the Handbook is inconsistent with State or Federal law, State Board for Community Colleges and Occupational Education Policies (BPs) or Colorado Community College System President's Procedures (SP's), the law, BPs and SPs shall supersede and control. BPs and SPs are subject to change throughout the year and are effective immediately upon adoption by the Board or System President, respectively. Students are expected to be familiar with and adhere to the BPs, SPs as well as College directives, including but not limited to the contents of the Handbook.

To access BPs and SPs, see www.cccs.edu/about-cccs/state-board/policies-procedures/.

Nothing in the Handbook is intended to create (nor shall be construed as creating) an express or implied contract or to guarantee for any term or to promise that any specific process, procedures, or practice will be followed, or benefit provided by the College. The College reserves the right to modify, change, delete or add to the information in the Handbook as it deems appropriate.

Planning for a Bachelor's Degree/Transfer Programs

Many students begin their college career at Pikes Peak State College with the eventual goal of completing a four-year, baccalaureate degree (bachelor's degree). Students may complete their associate's degree, or the first two years of four-year bachelor's degrees, at Pikes Peak State College and then transfer to four-year public or private institutions by following advising guides available for most arts and sciences programs. A good deal of arts and sciences bachelor's degrees may be obtained by completing an additional approximately 60 credit hours at a four-year college or university (an additional two years, at full-time status, beyond obtaining PPSC's associates degrees).

Statewide transfer agreements between most Colorado public four-year colleges and universities and the Colorado Community College system allow students seamless transfer. Several Colorado colleges and universities provide guaranteed admission, special scholarships, and reduced application fees or special privileges for Colorado community college associate of arts (AA) or associate of science (AS) graduates. In addition, Pikes Peak State College has special agreements with a variety of private in-state and out-of-state institutions. Some associates of general studies (AGS) or associates of applied science (AAS) degrees also have pathways toward obtaining bachelor's degrees. Students should consult with their faculty advisors during their first semester or as early as possible for detailed information about transfer programs. PPSC's transfer web pages provide additional information.

Career and Technical Education Programs

Career and technical education programs can help students get a job, change careers, or improve current job skills. The career and technical programs at Pikes Peak State College teach the skills needed to work in a business, technical, industrial, service, or health career. Our programs offer curriculum and facilities that simulate the workplace. Depending on the program and the level of training, students may choose a two-year Associate of Applied Science degree or a Certificate of Achievement that can be earned in less than two years.

All Career and Technical Education (CTE) programs operated at Pikes Peak State College are approved by the State Board for Community Colleges and Occupational Education. All CTE instructors possess occupational experience and a CTE credential to teach in their area of expertise. Enrollment in Career Start is completed at the high school. Contact your high school counselor or call 719-502-3111 for more information.

Locations and Facilities

To make a college education accessible and convenient to everyone, Pikes Peak State College has established three full-service campuses in Colorado Springs. The Centennial, Downtown, and Rampart Range Campuses provide educational services to the south, central, north, and northeast areas of the city.

Each full-service campus is a one-stop center for students which includes a Student Services Center, providing admissions, financial aid, records, and cashier services. Services include a bookstore, library services, student life and student government offices. Additionally, each campus provides Student Support Services, including advising and testing, Center/tutoring services, career services, and services for students with disabilities. Public bus service reaches the Downtown, Rampart Range, and Centennial campuses from all parts of the city.

CENTENNIAL CAMPUS

5675 South Academy Boulevard
Colorado Springs, CO 80906
719-502-2000, 800-456-6847
719-358-2453 [video phone for hearing impaired]

The Centennial Campus is a modern and well-equipped facility located in southern Colorado Springs. Transfer, career, and technical programs are offered. The full-service campus offers a complete range of student services, including admissions, academic advising, bookstore, financial aid, records, testing, Military and Veterans Programs, tutoring, ACCESSability Services, TRIO Student Support Services and career services.

The Centennial Campus provides a library, theatre, lecture halls, videoconference center, computer laboratories, language and culture lab, child development center, meeting and conference rooms, and science, career and technical laboratories. Sports and recreation facilities include a gymnasium, fitness center, tennis courts, soccer field and running track. The Campus Center houses the Student Life Office, the Student Government Association, the Grove, meeting rooms and more.

Convenient parking is available to students, employees, and visitors in lots C, D, and E. Handicapped parking is reserved near most building entrances, including special spaces for wheelchair access. Parking Lot A is reserved for ADA parking. Public bus service comes to the Centennial Campus from all parts of the city. The Centennial Campus is fully accessible to persons with disabilities, including those with wheelchairs. Special assistance is available through the Accessibility Services by calling 719-502-3333.

DOWNTOWN CAMPUS

100 West Pikes Peak Avenue
Colorado Springs, CO 80903

The Downtown Campus of PPSC has a convenient, central location in the heart of downtown Colorado Springs. It is located minutes away from the Bijou Exit (142) off I-25. The Downtown Campus is

a full-service facility, providing admissions, academic advising, bookstore, cashier, career services, financial aid, records, registration, testing, tutoring, ACCESSability Services, TRIO Student Support Services, campus life and activities, and other services for students. The Downtown Campus includes art and dance studios, an art gallery, a performance area, and music practice studios.

The Downtown Campus offers courses leading to Associate of Arts, Associate of Science, Associate of General Studies, and some Associate of Applied Science degrees. The Interior Design, Architecture, Music, and Dance Programs make their home at the Downtown Campus. Courses are conveniently scheduled from 8 a.m. to 10 p.m. Monday through Friday and from 8:30 a.m. to 4 p.m. on Saturday.

The Gallery at the Downtown Campus is a free, public art gallery that features works in all media created primarily by artists in the Pikes Peak Region. The Gallery places a strong emphasis on presenting multicultural and multimedia exhibits. Opening receptions are held for each exhibit during which music, dance, or poetry readings frequently enhance the themes of the exhibits. Other events are open to the public at a nominal admission charge.

Convenient parking is available during class hours on the third level (P3) in the Palmer Center Garage. The garage's entrance is just across the street from the Downtown Campus beneath the Antlers Hilton Hotel. Campus users validate parking on campus in the Student Commons area (first floor, north building). Parking is also available at metered spaces on the street.

RAMPART RANGE CAMPUS

2070 Interquest Pkwy
Colorado Springs, CO 80921

The Rampart Range Campus is conveniently located in northern Colorado Springs. The campus provides easy access via the InterQuest Parkway Exit (153) off I-25.

A full array of support services and programs is available to students, including admissions, bookstore, career services, cashier, academic advising, ACCESSability Services, TRIO Student Support Services, instructional support, financial aid, food services, library, Military and Veterans Programs, placement testing, records, student government, child development center, and campus life and activities.

The Rampart Range Campus offers courses leading to Associate of Arts, Associate of Science, Associate of General Studies, and Associate of Applied Science degrees.

The Campus offers the latest in advanced learning technology. Many classrooms are equipped with student and faculty computers, multimedia presentation capabilities, computerized projection units, and digitized white boards. Computerized lab equipment, and a fiber optic network are part of the instructional technology offered at this campus.

Convenient parking is available at Rampart Range Campus. The Rampart Range Campus is a fully accessible facility. Handicapped parking is reserved near most building entrances, including special spaces for wheelchair access.

ADDITIONAL LOCATIONS AND MILITARY SITES

Pikes Peak State College offers a variety of courses and programs at varying dates and times that differ from those of the traditional semester at the following locations: for High School students only: Colorado Springs Early Colleges, Early College High School, Harrison High School, Sierra High School; and Fort Carson Education Center and Peterson Space Force Base.

Come See Us

We welcome visitors to Pikes Peak State College, and we are happy to show prospective students around our campuses. To arrange for a tour of any of our locations, call us at 719-540-7722 or toll free at 866-411-7722.

Use of College Facilities

Outside groups who want to use one of our campuses should contact Events Management at Centennial Campus at 719-502-2333 or go to www.pikespeak.edu/use-of-facilities. This page will give specifics of what is required as well as cost. Click on "Create A Request" in the red box to complete a request.

ACADEMIC CALENDAR

The following is the Academic Calendar and is subject to change.

Summer 2023 [202410]

Important Dates
 March 13   Registration Begins
 July 15   Graduation Application Deadline

Holidays/Special Days
 May 29   Memorial Day Holiday, Campuses Closed
 June 19   Juneteenth, Campuses Closed
 July 4   Independence Day Holiday, Campuses Closed

Full Semester 10 Week Term   [F10]
 June 1   Last Day to Register
 May 30   Classes Begin
 June 8   Drop Date
 July 25   Withdraw Date
 August 6   Classes End

1st Bi-semester   [BI1]
 May 29   Last Day to Register
 May 30   Classes Begin
 June 5   Drop Date
 June 26   Withdraw Date
 July 3   Classes End

2nd Bi-semester   [BI2]
 July 4   Last Day to Register
 July 5   Classes Begin
 July 10   Drop Date
 July 31   Withdraw Date
 August 6   Classes End

Weekend Start   [WKC]
 June 3   Last Day to Register
 June 2   Classes Begin
 June 12   Drop Date
 July 24   Withdraw Date
 August 6   Classes End

1st Tri-semester   [TR1]
 May 29   Last Day to Register
 May 30   Classes Begin
 June 1   Drop Date
 June 16   Withdraw Date
 June 21   Classes End

2nd Tri-semester   [TR2]
 June 21   Last Day to Register
 June 22   Classes Begin
 June 26   Drop Date
 July 10   Withdraw Date
 July 14   Classes End

3rd Tri-semester   [TR3]
 July 14   Last Day to Register
 July 15   Classes Begin
 July 17   Drop Date
 August 1   Withdraw Date
 August 6   Classes End

CCCOnline Full Term   [CC1]
 May 31   Last Day to Register
 May 30   Classes Begin
 June 9   Drop Date
 July 24   Withdraw Date
 August 5   Classes End

CCCOnline Late Start   [CC2]
 June 13   Last Day to Register
 June 12   Classes Begin
 June 16   Drop Date
 July 10   Withdraw Date
 July 22   Classes End

Colorado Online 10 Week Term   [CZ2]
 May 31   Last Day to Register
 May 30   Classes Begin
 June 8   Drop Date
 July 25   Withdraw Date
 August 6   Classes End

Colorado Online 7 Week Term   [CZ4]
 June 19   Last Day to Register
 June 20   Classes Begin
 June 27   Drop Date
 July 28   Withdraw Date
 August 6   Classes End

Military Session I   [MI1]
 June 11   Last Day to Register
 June 12   Classes Begin
 June 19   Drop Date
 July 25   Withdraw Date
 August 6   Classes End

Military Session II   [MI2]
 June 25   Last Day to Register
 June 26   Classes Begin
 July 3   Drop Date
 July 28   Withdraw Date
 August 6   Classes End

Fall 2023 [202420]

Important Dates
 March 13   Registration Begins
 November 15   Graduation Application Deadline

Holidays/Special Days
 September 4   Labor Day Holiday, Campuses Closed
 September 5   Campuses Open - No classes
 November 22   Campuses Open - No classes
 November 23   Thanksgiving Holiday, Campuses Closed
 November 24-26   Campuses Open - No classes
 Dec 24-Jan 1   Campuses Closed

Full Semester 10 Week Term   [F15]
 August 20   Last Day to Register
 August 21   Classes Begin
 September 6   Drop Date
 November 16   Withdraw Date
 December 10   Classes End

Full Semester 12 Week Term   [F12]
 September 10   Last Day to Register
 September 11   Classes Begin
 September 25   Drop Date
 November 21   Withdraw Date
 December 10   Classes End

1st Bi-semester   [BI1]
 August 20   Last Day to Register
 August 21   Classes Begin
 August 28   Drop Date
 October 3   Withdraw Date
 October 15   Classes End

2nd Bi-semester   [BI2]
 October 15   Last Day to Register
 October 16   Classes Begin
 October 23   Drop Date
 November 28   Withdraw Date
 December 10   Classes End

Weekend Start   [WKC]
 August 24   Last Day to Register
 August 25   Classes Begin
 September 11   Drop Date
 November 20   Withdraw Date
 December 10   Classes End

Late Start   [LAT]
 September 26   Last Day to Register
 September 27   Classes Begin
 October 9   Drop Date
 November 27   Withdraw Date
 December 10   Classes End

1st Tri-semester   [TR1]
 August 20   Last Day to Register
 August 21   Classes Begin
 August 25   Drop Date
 September 18   Withdraw Date
 September 26   Classes End

2nd Tri-semester   [TR2]
 September 26   Last Day to Register
 September 27   Classes Begin
 October 2   Drop Date
 October 24   Withdraw Date
 October 31   Classes End

3rd Tri-semester   [TR3]
 October 31   Last Day to Register
 November 1   Classes Begin
 November 6   Drop Date
 December 4   Withdraw Date
 December 10   Classes End

CCCOnline Full Term   [CC1]
 August 30   Last Day to Register
 August 28   Classes Begin
 September 12   Drop Date
 November 20   Withdraw Date
 December 9   Classes End

CCCOnline Late Start   [CC2]
 October 3   Last Day to Register
 October 2   Classes Begin
 October 12   Drop Date
 November 27   Withdraw Date
 December 9   Classes End

CCCOnline 1st Fast Track   [CC4]
 September 12   Last Day to Register
 September 11   Classes Begin
 September 18   Drop Date
 October 13   Withdraw Date
 October 21   Classes End

CCCOnline 2nd Fast Track   [CC5]
 October 31   Last Day to Register
 October 30   Classes Begin
 November 6   Drop Date
 December 1   Withdraw Date
 December 9   Classes End

Colorado Online 15 Week   [CZ1]
 August 20   Last Day to Register
 August 21   Classes Begin
 September 6   Drop Date
 November 16   Withdraw Date
 December 10   Classes End

Colorado Online 10 Week   [CZ2]
 September 24   Last Day to Register
 September 25   Classes Begin
 October 4   Drop Date
 November 27   Withdraw Date
 December 10   Classes End

Colorado Online 1st Bisemester   [CZ4]
 August 20   Last Day to Register
 August 21   Classes Begin
 August 29   Drop Date
 September 28   Withdraw Date
 October 8   Classes End

Colorado Online 2nd Bisemester   [CZ5]
October 15	Last Day to Register
October 16	Classes Begin
October 24	Drop Date
December 1	Withdraw Date
December 10	Classes End

Military Session I   [MI1]
August 20	Last Day to Register
August 21	Classes Begin
August 28	Drop Date
October 3	Withdraw Date
October 15	Classes End

Military Session II   [MI2]
August 27	Last Day to Register
August 28	Classes Begin
September 5	Drop Date
September 29	Withdraw Date
October 8	Classes End

Military Session III   [MI3]
October 6	Last Day to Register
October 7	Classes Begin
October 16	Drop Date
December 1	Withdraw Date
December 15	Classes End

Military Session IV   [MI4]
October 8	Last Day to Register
October 9	Classes Begin
October 16	Drop Date
November 10	Withdraw Date
November 19	Classes End

Military Session V   [MI5]
October 15	Last Day to Register
October 16	Classes Begin
October 23	Drop Date
November 28	Withdraw Date
December 10	Classes End

Spring 2024 [202430]

Important Dates
October 16   Registration Begins
February 15   Graduation Application Deadline

Holidays/Special Days
March 25-31   Spring Break, Campuses Open - No classes
May 11   Graduation Ceremony

Full Semester 10 Week Term   [F15]
January 15   Last Day to Register
January 16   Classes Begin
January 31   Drop Date
April 11   Withdraw Date
May 6   Classes End

Full Semester 12 Week Term   [F12]
February 4   Last Day to Register
February 5   Classes Begin
February 19   Drop Date
April 17   Withdraw Date
May 6   Classes End

1st Bi-semester   [BI1]
January 15   Last Day to Register
January 16   Classes Begin
January 23   Drop Date
February 27   Withdraw Date
March 9   Classes End

2nd Bi-semester   [BI2]
March 9   Last Day to Register
March 10   Classes Begin
March 18   Drop Date
April 24   Withdraw Date
May 6   Classes End

Weekend Start   [WKC]
January 18   Last Day to Register
January 19   Classes Begin
February 5   Drop Date
April 15   Withdraw Date
May 6   Classes End

Late Start   [LAT]
February 19   Last Day to Register
February 20   Classes Begin
March 1   Drop Date
April 22   Withdraw Date
May 6   Classes End

1st Tri-semester   [TR1]
January 15   Last Day to Register
January 16   Classes Begin
January 22   Drop Date
February 12   Withdraw Date
February 19   Classes End

2nd Tri-semester   [TR2]
February 19   Last Day to Register
February 20   Classes Begin
February 26   Drop Date
March 22   Withdraw Date
April 1   Classes End

3rd Tri-semester   [TR3]
April 1   Last Day to Register
April 2   Classes Begin
April 8   Drop Date
April 29   Withdraw Date
May 6   Classes End

CCCOnline 1st Term   [CC1]
January 31   Last Day to Register
January 29   Classes Begin
February 13   Drop Date
April 22   Withdraw Date
May 11   Classes End

CCCOnline 2nd Term   [CC2]
March 5   Last Day to Register
March 4   Classes Begin
March 14   Drop Date
April 29   Withdraw Date
May 11   Classes End

CCCOnline 1st Fast Track   [CC4]
February 13   Last Day to Register
February 12   Classes Begin
February 19   Drop Date
March 15   Withdraw Date
March 23   Classes End

CCCOnline 2nd Fast Track   [CC5]
April 2   Last Day to Register
April 1   Classes Begin
April 8   Drop Date
May 3   Withdraw Date
May 11   Classes End

Military Session I   [MI1]
January 7   Last Day to Register
January 8   Classes Begin
January 15   Drop Date
February 9   Withdraw Date
February 18   Classes End

Military Session II   [MI2]
January 21   Last Day to Register
January 22   Classes Begin
January 29   Drop Date
March 5   Withdraw Date
March 17   Classes End

Military Session III   [MI3]
March 1   Last Day to Register
March 2   Classes Begin
March 12   Drop Date
May 1   Withdraw Date
May 17   Classes End

Military Session IV   [MI4]
March 17   Last Day to Register
March 18   Classes Begin
March 26   Drop Date
May 6   Withdraw Date
May 19   Classes End

Military Session V   [MI5]
March 31   Last Day to Register
April 1   Classes Begin
April 8   Drop Date
May 3   Withdraw Date
May 12   Classes End

GETTING STARTED

In This Section

We believe that everyone who is able to successfully complete courses should have a chance to attend college.

Prospective students who are at least 17 years old or have a high school diploma, a GED (High School Equivalency Diploma), or a college degree will, in most cases, be automatically admitted to PPSC.

However, admission to the College does not guarantee admission into a desired program. Some programs are limited to a certain number of students each semester. We have a priority system so that program applicants are selected impartially.

Advising & Testing

Advising & Testing supports student learning by aiding students in deciding what degree or certificate they can pursue to meet their career goals; how to choose courses that provide the shortest path to their chosen goal; and if they are best prepared to start with college level course work. Advising & Testing provides students with information on transferring to 4-year schools; career readiness; faculty advising; and registering for classes. Visit our webpage at www.pikespeak.edu/advising and www.pikespeak.edu/testing or one of our Advising & Testing offices available at all PPSC campuses for any of the following.

- Explanation of basic skills (placement test) results, and assistance in selecting the correct classes based upon a student's degree and placement results
- Information on course sequence and prerequisites
- Help in adding or dropping classes
- Assignment of a faculty advisor
- Assistance with changing a course of study or faculty advisor, www.pikespeak.edu/records/change-of-major
- College credit and professional certification exams to advance career goals

Class Schedule

Our class schedule is published every semester and is available on the PPSC website at www.pikespeak.edu. It lists the time and location for each course. Fall and Spring terms are 15 weeks long and may include a finals week in some areas. The summer term is 10 weeks long.

To provide more flexibility, we offer some classes for 5-weeks, 7 ½ weeks, or other scheduling options.

If you are looking for online classes, PPSC eLearning sections offer flexible scheduling options for students. All PPSC online courses will have an "N" in the section number.

Class schedule information may change without notice.

Concurrent Enrollment

Concurrent Enrollment (CE) is a program for high school students to earn college credit and seek degrees and certificates. Through CE, high school students may take PPSC courses on the college campus, online, or approved high school locations.

ASCENT

Accelerating Students through Concurrent Enrollment (ASCENT) allows students from participating Colorado school districts and who have successfully completed at least 12 postsecondary credits to receive free tuition for up to 24 college credits toward degrees or certificates. Interested students should contact their high school counselor or High School Programs at 719-502-3111 for more information.

New Students

The first step toward enrollment is to complete the College Opportunity Fund application. This application ensures that resident students receive the State higher education stipend. Failure to register will result in higher tuition costs for the resident student.

The next step is to complete an application for admission. Potential students are encouraged to apply online at www.pikespeak.edu. Students should apply early to get the best possible start in college.

Readmit Students

Students who have been enrolled at Pikes Peak State College before but have not attended for three or more semesters, including summer, must re-submit an Application for Admission.

Readmission of military service member students

PPSC will allow readmission of service members to selective application programs or to reenter their original program of study at the academic year of their enrollment if the service member is required to completely withdraw from the institution for a period of more than 30 consecutive days in compliance with Section 484C of the Higher Education Act of 1965 and with Federal Law 20 U.S.C 1091c. Service members who believe they meet this criterion should contact the Department of Military and Veterans Programs (719-502-4200 or mvp@pikespeak.edu) to begin the re-admission process.

Transfer Students to PPSC

To transfer credits from another college, students must request that an official transcript be sent for evaluation to the Registrar's Office at PPSC from their prior institution. Request forms are available from the Student Services Centers. (See Academic Standards on page 17).

International (F1) Students

Pikes Peak State College has a great deal to offer international students! For admissions purposes, PPSC defines an international student as anyone who already possess an F1 Visa or would like to apply for one.

Prospective students may apply to PPSC and then submit the following documents for review:

Proof of English Proficiency. *One* of the following is needed as evidence of English proficiency:

- Minimum score of 450 (written test), 45 (Internet based test) on the Test of English as a World Language (TOEFL). PPSC's institution code for TOEFL is 4291. Students scoring below 550 (written) or 80 (Internet) may attend PPSC but will need to take our ESL placement test when they arrive at PPSC. They should plan on taking one to three semesters of ESL before beginning their program of study. Students scoring at or above 550 (written) or 80 (Internet), may enroll in courses towards their field of study.

- Minimum score of 5.5 on the International English Language Test System (IELTS). Students scoring below 6.5 may attend PPSC but will need to take our ESL placement test when they arrive at PPSC. They should plan on taking one to three semesters of ESL before beginning their program of study. Students scoring at or above 5.5 may enroll in courses towards their field of study.

- Minimum score of 500 on the Test of English for International Communication (TOEIC). Students scoring below 750 may attend PPSC but will need to take our ESL placement test when they arrive at PPSC. They should plan on taking one to three semesters of ESL before beginning their program of study. Students scoring at or above 750 may enroll in courses towards their field of study.

- Minimum score of 38 on the Pearson PTE The English Language Test. Students scoring below 53 may attend PPSC but will need to take our ESL placement test when they arrive at PPSC. They should plan on taking one to three semesters of ESL before beginning their program of study. Students scoring at or above 53 may enroll in courses towards their field of study.

- Transcripts showing graduation from an English language school.

- If already in the US, passing score on the English as a Second Language (ESL) four-part Accuplacer Test, taken on-site at Pikes Peak State College.

- Proof of English proficiency is waived if the student graduated from a secondary school (high school) with entirely English instruction or has successfully completed college coursework at another US college.

Proof of Financial Resources

- International Student Financial Statement (will be sent after student applies)

- Original supporting bank documents dated within the last three months that show you have sufficient funds for one year of study and living expenses. $30,000 is required for independent students and $17,000 for students receiving room and board support from a sponsor (example – family, friend or organization). If sponsored by an individual or organization, please supply a notarized sponsor letter detailing all support that will be provided. If your sponsor/s will also be paying tuition and other academic fees, we will need a bank statement from them, showing at least $17,000. If you will be coming with dependents who need an F2 visa, additional funds are required; an additional $5,000 for a spouse and $3,750 for each child.

- Although we can accept a COPY of a bank statement in many instances, PPSC may request that a bank statement come to us directly from the bank. We may ask for this at any time during the admissions process.

Academic Records

- Official High School transcript if highest level of education. If not in English, we also need a certified English translation.

- College transcripts, if applicable. If not in English, we also need a certified English translation. If you wish to have previous college credit applied towards a degree or certificate, an official evaluation of your transcripts must be made by a certified International Transcript Evaluation Service.

Transfer from Another U.S. School

- If you are already in the United States, attending another college as an F-1 student, and would like to transfer to Pikes Peak State College, please also provide a statement from the international student advisor at your current school that confirms you are in good status.

An admissions application must be completed, and all required documents submitted by:

> Summer Semester – April 1
> Fall Semester – July 1
> Spring Semester – November 15

If you already have an F1 Visa and would like to transfer to PPSC, it is a much quicker process and mostly dependent on how long it takes for you to submit all the required documents. If you are accepted as a student, we would then arrange for your SEVIS record to be transferred from your existing school to PPSC. *The transfer student application and document deadline is 2 weeks prior to the first week of classes for the semester.*

Registration

After meeting with an advisor and selecting a schedule of classes, the next step is to register. The registration period begins several months before the start of each new semester. Students may register by using the Internet, or on-site at the Centennial, Downtown, or Rampart Range Campuses. The class schedule published each semester includes details about how to register. The schedule also explains how to add, drop, or change classes once enrolled. Note that instructors or other College staff are not responsible for dropping you from or changing registration in your classes. A helpful registration guide is available.

Satisfying College Course Placement Requirements

The College assists students with course and educational planning decisions through any of the Advising & Testing centers.

Most students can start in the college-level English and Math classes they need for their degree. Students do this by enrolling in their college-level English and Math classes with a co-requisite college-prep support course. These co-requisite college-prep courses are designed to make sure you have the skills needed to be successful in your college level courses.

To enroll in college-level coursework without a co-requisite college-prep, students must demonstrate that they are College Ready for English, College Ready for Algebra, College Ready for Quantitative Literacy, and/or College Ready for Career & Technical Math. College Ready may be satisfied by meeting any of the following requirements:

College Readiness in English can be demonstrated by:
- Completed high school Junior year English with a "B" or better both semesters within the last 2 years
- Completed equivalent college prep courses in English with a "C" or higher from a regionally accredited college or university within the last 15 years
- Completed equivalent college level English course with a "C" or higher from a regionally accredited college or university within the last 15 years
- Completed equivalent ESL Advanced Reading and ESL Advanced composition courses with a "C" or higher from a regionally accredited college or university within the last 15 years
- Earned Associate of Arts (AA) or Associate of Science (AS) from a regionally accredited college or university
- Earned Bachelor's degree from a regionally accredited college or university
- ACT English score of 18 within last 5 years
- SAT Evidence-Based Reading and Writing score of 470 within the last 5 years
- Accuplacer Next Gen Writing score of 246 within the last 5 years
- GED Language Arts score of 165 within the last 5 years
- TOEFL score of 66
- IELTS score of 7
- Completed a college credit exam AP, CLEP, DSST, GED, or IB with qualifying scores within the last 15 years
- Concurrent enrollment in ENG 0094 or ENG 0077

College Readiness for Algebra can be demonstrated by:
- Completed high school Pre-Calculus or higher with a "B" or better both semesters within the last 18 months
- Completed equivalent college prep courses in Math with a "C" or higher from a regionally accredited college or university within the last 15 years
- Completed equivalent college level Math course with a "C" or higher from a regionally accredited college or university within the last 15 years
- Earned Associate of Science (AS) degree
- Earned Bachelor of Science (BS) degree from a regionally accredited college or university
- ACT Math score of 23 within the last 5 years
- SAT Math score of 560 within the last 5 years
- Accuplacer Next Gen AAF score of 245 within the last 5 years
- Completed College Algebra or higher college credit exam AP, CLEP, DSST, GED, or IB with qualifying scores within the last 15 years

In addition to the College Readiness for Algebra requirements, College Readiness for Quantitative Literacy can be demonstrated by:

- Completed high school Algebra II with a "B" or better both semesters within the last 18 months
- Earned Associate of Arts (AA) from a regionally accredited college or university
- Earned Bachelor's degree from a regionally accredited college or university
- ACT Math score of 19 within last 5 years
- SAT Math score of 500 within the last 5 years

- Accuplacer Next Gen QAS score of 240 within the last 5 years
- GED Math score of 165 within the last 5 years
- Completed Math college credit exam AP, CLEP, DSST, GED, or IB with qualifying scores within the last 15 years
- Concurrent enrollment in MAT 0240 or MAT 0260

In addition to the College Readiness for Quantitative Literacy requirements, College Readiness for Career & Technical Math can be demonstrated by:

- Accuplacer Next Gen Arithmetic score of 265 within the last 5 years
- Concurrent enrollment in MAT 0120, MAT 0140, or MAT 0161

If you meet one or more of the requirements above, please scan and email your supporting documents to testing.center@pikespeak.edu or upload through this form pikespeak.edu/l/academic-history. To officially transfer your prior college credits to PPSC, you will also need to submit official transcripts to the PPSC Records department.

Students may choose to enroll in college-preparatory coursework if they cannot demonstrate college-readiness. Advising & Testing can recommend the college-preparatory coursework for your degree or certificate program.

Students who wish to enroll in college-level coursework without evidence of College Readiness in English, College Readiness for Quantitative Literacy, and/ College Readiness for Algebra may take a placement test in any of our Advising & Testing centers. For information on how to complete placement testing: pikespeak.edu/testing-center.

All new students entering the English as a Second Language (ESL) must take a placement test. This test will place new students into one of three levels: basic, intermediate, or advanced. The test is available by computer at all campuses. ESL students should call 719-502-3535 for further information.

Accommodations are available for students with documented disabilities. Contact Accessibility Services to make arrangements for accommodated placement testing. 719-502-3333.

You must present a valid photo ID to test. All testing stops fifteen minutes prior to closing time.

For information about all testing services and hours of operation visit pikespeak.edu/testing-center. Centennial Campus Testing Center, 719-502-3370 or Rampart Range Campus Testing Center, 719-502-3380.

Active-duty military may take placement tests at Ft. Carson, Bldg. 1117 and Peterson SFB, Bldg. 1141. An appointment is not necessary, but it is recommended that you contact those offices to confirm availability: Fort Carson, 719-502-4200; Peterson, 719-502-4300.

TUITION AND FEES

In This Section

Tuition

For tuition purposes, students are considered either in-state or out-of-state when they apply for admission. This practice is governed by Colorado statute. To be entitled to in-state tuition, students must live in Colorado and fulfill specific citizen responsibilities for one full calendar year before they register. Contact the Student Services Centers for more information or see the second page of the Application for Admission form.

New Colorado law (HB 20-1275) grants active-duty military and their spouse/child under 23 years of age, or veterans and their spouse/child under 23 years of age both in-state tuition rates and College Opportunity Fund Stipend (COF) eligibility. Students who indicate above military affiliation on their college application will automatically be granted the resident rate with COF. Alternately, students may submit their valid military ID or DD214 via web form at https://www.pikespeak.edu/military/mil-instate-tuition. Active-Duty on Title 10 orders will pay the military online rate of $250 per credit hour. They must identify as active-duty when submitting their college application.

Olympic Training Center. Olympic athletes may pay in-state tuition rates. Student status must be verified by the U.S. Olympic Training Center. A separate form must be submitted to the Student Services Centers prior to the census date each term for which the in-state tuition rate is requested. The College has no obligation to honor late requests, in which case the student may be held responsible for payment of the non-resident tuition rates.

Colorado ASSET Bill

Senate Bill 13-033, also known as Colorado ASSET, allows U.S. Citizens, Permanent Residents, and students without lawful immigration status to receive in-state tuition through attendance and graduation from a Colorado high school or through attendance at a Colorado high school combined with obtaining the GED.

To qualify for in-state tuition under ASSET, students must:

- Have attended a public or private high school in Colorado for at least three years immediately preceding the date the student either graduated from a Colorado high school or completed a general equivalency diploma in Colorado; and
- Be admitted to a Colorado college or university within 12 months of graduation from a Colorado high school or completion of a Colorado GED.
- Students without lawful immigration status must apply for COF and complete an affidavit stating that the student has applied for lawful presence or will apply as soon as he or she is eligible to do so.
- Students without lawful immigration status who graduated or complete their GED prior to September 1, 2013 but were not admitted to a college or university within twelve months after graduating or completing the GED must have been physically present in Colorado on a continuous basis for at least 18 months preceding the start of the semester.
- As with the traditional domicile path, residency classification will be determined based off the information and documents submitted by the student. The burden of proof is on the individual seeking in-state tuition.

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 new law establishing the College Opportunity Fund (COF). Under this new law, the State gives this money for the subsidy to students by sending it to the institution the student designates. This money, known as the College Opportunity Fund stipend, will be applied to students who qualify for in-state tuition and have lawful presence in the US, to include DACA, ASSET, and students on visas. High school concurrent students and those utilizing military/veteran benefits are COF eligible, regardless of residency status. The college you are attending will receive the money and it will appear as a credit on your tuition bill. Currently the College Opportunity Fund (COF) stipend is estimated to be worth $104 per credit hour.

Failure to sign up and authorize COF will result in the loss of this stipend. To sign up go to https://cof.college-assist.org/. Students can authorize their COF via their student portal.

Estimated Per Credit Hour Base Tuition Calculation 2022-2023

Total estimated base in-state tuition	$260.40
Minus estimated College Opportunity Fund Stipend	$104.00
Student's estimated share of in-state tuition	$154.40

Western Undergraduate Exchange (WUE) Program

Students who are residents of Western Interstate Commission for Higher Education (WICHE) https://www.wiche.edu/ states may be eligible to request a reduced Western Undergraduate Exchange (WUE) tuition rate which is less than the non-resident rate. WICHE states include Alaska, Arizona, California, Commonwealth of N. Marianas Islands, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

Students applying for the WUE program must provide evidence of domicile in the qualifying states and will be required to reapply for WUE each semester. You may pick up a WUE application at any campus at the Student Services Center.

Students are not permitted to apply time spent in the WUE program toward satisfaction of residency requirements for tuition classification purposes. Online courses are not eligible for the WUE tuition rate.

Tuition and Fees (2022-2023)*

Tuition for in-state and out-of-state.

The in-state tuition rate for 2022-2023 is $156.40 per credit hour after COF (see above). The out-of-state tuition rate for 2022-2023 is $641.80 per credit hour. There are some courses that have higher tuition rates. Please refer to the tuition and fee chart at www.pikespeak.edu/paying-college/tuition-fees/ for more information.

Student fees.

The student fee rate for 2022-2023 is $10.85 per credit hour plus a $15.10 registration fee, and a $10.00 Bus Pass Fee.

Course fees.

Some courses have extra fees ranging from $3.00 per credit hour to $1,860.00 per course. Refer to www.pikespeak.edu/paying-college/tuition-fees/ for a detailed list.

*Tuition and fees are set by the State Legislature and Governing Board late in the fiscal year and potential increases for the 2023-2024 year are unknown at the time of this printing. Tuition and fee rates for off-campus locations may vary according to operational costs.

Student Activity Fees

Mandatory fees associated with enrollment in the college and/or campus that are assessed for a specific purpose. These fees include, but are not limited to, student centers, recreation, student government, contract health services, and/or similar services and facilities; non-bonded parking fees; and any general fee, the revenue from which is appropriated by student government for a specific purpose. Specific guidelines are provided in the PPSC Institutional Fee Plan.

Residency Classification Appeals

Out-of-state students pay higher tuition than in-state students. Students classified as out-of-state who believe that they are in-state may appeal by picking up a "Petition for In-State Tuition Classification" from the Student Services Centers. The petition and required supporting documents must be submitted to the Student Services Centers by the deadline listed in the class schedule. Turning in a petition does not guarantee that residency status will be changed. If the petition is denied, the student must drop classes by the deadline or pay out-of-state tuition and fees.

To challenge the ruling on a petition, students may appeal to the Tuition Classification Review Committee. Ask the Student Services Centers personnel for details.

The general requirements for Colorado residency are as follows:

- 12 months of continuous domicile in the state of Colorado
- Have filed Colorado state income tax returns as a Colorado resident
- Have a Colorado driver's license

For the entire Colorado policy regarding residency, go to highered.colorado.gov/Finance/Residency/default.html. All information used to prove Colorado residency must be submitted to the Student Services Center by the first day of class for the full term.

Tuition Adjustment

To receive a tuition refund or adjustment, students must drop classes by the drop date listed in the class schedule and course catalog. No refunds or adjustments will be made after the drop date except in rare cases of documented emergency circumstances. This request criteria and required forms are available online. Each situation will be reviewed by a multidisciplinary committee to ensure the student's request aligns with the college's request criteria. If the request does not meet outlined criteria, the request may be denied. All students are responsible for understanding the ramifications of submitting this request. It is, therefore, encouraged that students contact relevant departments prior to submitting a request. Contract programs may have different refund procedures.

Books

The bookstores at the Centennial and Rampart Range Campuses stock books and supplies needed for courses offered at that campus. A wide variety of other school supplies and PPSC insignia items are also available at all three campus bookstores.

Textbooks may be purchased from our bookstore online at www.pikespeak.bncollege.com. Course material information in accordance with the College Opportunity and Affordability Act is available at www.pikespeak.bncollege.com.

The bookstores have several opportunities for you to sell your eligible books back. The demand for books and the condition of your books will determine eligibility for all buyback opportunities listed below.

- "Top Dollar Buyback" is scheduled at the end of each semester. This is an opportunity for you to sell your books back for up to 50 percent of the bookstore purchase price.
- Buybacks are also scheduled at the beginning of each term. This buyback offers wholesale value for your eligible books.
- In addition, between scheduled buyback events, the bookstore will review your books for buyback eligibility daily. If eligible, we can pay you wholesale value for your books. This is available online at www.pikespeak.bncollege.com or in one of our stores during normal business hours. There are circumstances where buyback proceeds may be applied to outstanding balances at the College.

Financial Aid

There are numerous financial resources available for students who attend Pikes Peak State College. Students should start the process by applying online for the Free Application for Federal Student Aid (FAFSA). The application will explain which tax return and income information students need for reference and federal tax returns may also be downloaded automatically if the student has filed an electronic tax return two weeks prior to doing the

FAFSA. This application is available on the Internet at https://studentaid.gov/. If signed electronically, this process takes less than a week for the school to receive. Students are encouraged to apply as soon as possible. Applications for the next academic year (beginning in late August) were available October 1. To avoid delays, please complete the FAFSA and do so as soon as a decision is made to apply for admission to the College.

No other documentation is necessary until the U.S. Department of Education processes the request. If it is necessary for the school to request more information after the results have been received, notifications are made via the student's college assigned email.

To learn more about financial aid programs, how aid is distributed, student rights and responsibilities, or policies and procedures, please contact the Student Services Center or review this information online at www.pikespeak.edu.

American Opportunity Tax Credit

Under the American Recovery and Reinvestment Act (ARRA), more parents and students will qualify for the American Opportunity Tax Credit to help pay for college expenses.

The American Opportunity Tax Credit modifies the existing Hope Credit. The AOTC makes the Hope Credit available to a broader range of taxpayers, including many with higher incomes and those who owe no tax. It also adds required course materials to the list of qualifying expenses and allows the credit to be claimed for four post-secondary education years instead of two. Many of those eligible will qualify for the maximum annual credit of $2,500 per student.

The full credit is available to individuals whose modified adjusted gross income is $80,000 or less, or $160,000 or less for married couples filing a joint return. The credit is phased out for taxpayers with incomes above these levels. These income limits are higher than under the existing Hope and Lifetime Learning Credits.

The AOTC applied to tax years 2009 and 2010 under ARRA. The credit was extended to apply for tax years 2011 and 2012 by the Tax Relief and Job Creation Act of 2010. The American Taxpayer Relief Act of 2012 extended the AOTC for five years through December 2017.

If you still have questions about the American Opportunity Tax Credit, these questions and answers might help.

Earned Income Tax Credit/Child Tax Credit

The Earned Income Tax Credit or the EITC is a refundable federal income tax credit for low to moderate income working individuals and families. Congress originally approved the tax credit legislation in 1975 in part to offset the burden of social security taxes and to provide an incentive to work. When EITC exceeds the amount of taxes owed, it results in a tax refund to those who claim and qualify for the credit.

To qualify for Earned Income Tax Credit or EITC or simply called EIC, you must have earned income from employment, self-employment or another source and meet certain rules. In addition, you must either meet the additional rules for Workers without a Qualifying Child or have a child that meets all the Qualifying Child Rules for you. Taxpayers must meet certain requirements and file a tax return, even if they do not have a filing requirement.

For more information including help in determining whether individuals and their families qualify, go to www.irs.gov/publications. Please consult this website before you file your taxes. It is estimated that 25 percent of all eligible individuals do not take advantage of this program.

The Child Tax Credit is a credit that may reduce your tax by as much as $1,000 for each of your qualifying children. The Additional Child Tax Credit is a credit that you may be able to take if you are not able to claim the full amount of the Child Tax Credit. You may not qualify for the Child Tax Credit but qualify for the Additional Child Tax Credit.

Programs

There are four types of financial aid:

- Scholarships are generally based on school grades, need, or accomplishments in a particular area of study.
- Grants are federal and state programs based on demonstrated financial need.
- Loans provide funds while students are attending school but must be repaid.
- Work-study agreements allow students to work for the College while enrolled.

Scholarships and grants do not need to be repaid. The Student Financial Aid Handbook, available in the Student Services Centers or online at www.pikespeak.edu/financial-aid-office/financial-aid-forms describes each of these programs.

Foundation Scholarships

The Pikes Peak State College Foundation provides scholarship support to many PPSC students each year. Go to www.pikespeak.edu/scholarships for more information about available scholarships and how to apply. Questions can be directed to scholarships@pikespeak.edu.

Grants

- Colorado Student Grants (CSG)
- Federal Pell Grants (PELL)
- Federal Supplemental Educational Opportunity Grants (FSEOG)

Loans

- Federal Direct Stafford Student Loans (subsidized and unsubsidized)
- Federal Direct Parent Loans (PLUS)
- Studentloans.gov allows students and parents meeting federal eligibility requirements to complete a Master Promissory Note for a Stafford and/or PLUS loan online.

Employment Opportunities

- Federal College Work-Study Employment
- Colorado Work-Study Employment
- VA Work-Study Employment (See Military & Veterans Programs for more information)

ACADEMIC STANDARDS

In This Section

Students are expected to attend all classes, laboratories, and shops as scheduled unless there is a compelling reason to be absent.

Maximum Course Load

Fifteen (15) credit hours is considered to be the standard course load for a student enrolled in a given semester. This will vary however by degree and/or certificate and whether a student is a full-time or part-time student. Twelve (12) credit hours is considered the minimum for full-time enrollment in a given semester, and anything below 12 credit hours is considered part-time enrollment. The maximum course load that a student can enroll in on their own without restriction is 18 credit hours. Any student who wants to enroll in more than 18 credit hours and up to 21 credit hours in a given semester can receive an override on the maximum credit hour restriction from an academic advisor in Advising & Testing, provided the student has a cumulative grade point average of 3.0 or higher in college level course work. Any student seeking to enroll in more than 21 credit hours and up to 24 credit hours in a given semester must receive Academic Dean permission. For any student wanting to enroll in more than 24 hours in a given semester the permission of the Vice President for Instructional Services is required.

Certain career and technical programs approved by the State Board for Community Colleges and Occupational Education may require students to enroll in up to 24 credit hours per semester. For such programs, students will be allowed to enroll in all necessary courses.

Student workload for a course should be estimated according to the following formula: Two hours of outside preparation for every one hour of lecture and one hour of outside preparation for every two to three hours of laboratory time. Any course syllabus that indicates different preparation times than these takes precedence over this general instruction.

Change of Major/Program

Students may declare and/or change a program of study at any time during the term in which they are enrolled. Prior to changing their major, students are strongly encouraged to meet with an academic advisor in the Advising & Testing office and the Financial Aid Office to discuss the impact changing a course of study will have on an educational plan. Additionally, Students using military or veteran education benefits should confirm how changing their major might impact funding eligibility. A change of major places students under the academic and curriculum requirements of their new program as published in the current college catalog. The form can be found at www.pikespeak.edu/records/change-of-major.

Credit by Examination

Students may take a comprehensive examination for credit if they are enrolled in a course and have the approval of their instructor and dean. Students must complete the examination by the census date for the course and will receive the grade earned on the examination as a final grade for the course. Students may attempt a test-out only once per course.

Transfer to PPSC

All credits earned at regionally accredited colleges or universities, including PPSC, or other approved educational institutions may be applied toward fulfilling PPSC program requirements. Transferability of credit is based on the following conditions:

- Credits must have been earned within 15 years prior to admission to PPSC.
- Courses in which a grade of C- or above was earned will be accepted in transfer when the courses are applicable to PPSC programs and in accordance with PPSC requirements. Credit will be transferred only from an official transcript from the originating institution.

Students who have credits they wish to transfer to PPSC that can replace a substandard grade earned at PPSC must see an advisor to initiate that request. If approved, this will result in the points associated with that grade being excluded from the student's cumulative GPA. The grade earned at PPSC will still appear on the student's official transcripts. Other institutions receiving a PPSC transcript for transfer of academic courses are not bound by this college policy and may choose to calculate the student's transfer GPA to include all grades, even those excluded by PPSC under this policy.

International Transcript Evaluations

Students who have attended international institutions and want their credits evaluated for transfer must first have the international transcripts evaluated by a recognized member of the National Association of Credential Evaluation Services (NACES) and have an official copy of their course-by-course credit evaluation report sent directly to Pikes Peak State College (PPSC). Students who plan to study a program at PPSC similar to what they studied at their former international institution, might be able to transfer some credits from that program to their new program at

PPSC. Not all credits will transfer. Transferability of credit is based on the following conditions:

- The courses taken at an international institution must be comparable to what we offer at PPSC to be accepted for transfer.
- College credits must have been earned within 15 years prior to admission to PPSC.
- PPSC only accepts college-level courses with a grade of C or better.
- Students may also be required to provide English-translated course descriptions for courses that they wish to have transferred.

Steps to transferring in college credits:
Step 1: Apply for PPSC admissions.
Step 2: Declare a degree or certificate program.
Step 3: Submit an official copy of the NACES course-by-course evaluation report to the PPSC Records Office located at the Centennial Campus. Official copy must be in a sealed envelope from the evaluation service – do not open it.

Students may also request to have the evaluation sent directly to:

Pikes Peak State College
Attn: Records Office, Box C-8
5675 S. Academy Blvd.
Colorado Springs, CO 80906

The Records Office will determine if PPSC can transfer some of your credits to a PPSC degree program.

A complete list of approved NACES members can be found at www.naces.org.

Below are recommended evaluation services for a course-by-course evaluation of your international educational record.

Educational Credential Evaluators, Inc.
Phone: (414) 289-3400
Website: www.ece.org
Email: eval@ece.org

World Education Services
Phone: (212) 966-6311
Website: www.wes.org

Josef Silny & Associates
Phone: (305) 273-1616
Website: www.jsilny.com

Transcript Requests

PPSC has partnered with Parchment to manage the ordering, processing, and secure delivery of official student transcripts. Students may request copies of their official transcripts from PPSC by filling out a transcript request form. The transcript cost is based on the method of delivery and destination. During the ordering process you will be able to see the exact charge prior to entering your credit card information. Transcripts are not released until all accounts with PPSC are current. Transcript request instructions and costs can be found online at www.pikespeak.edu/records/request-transcripts.

Grading System

APPLICATION

This procedure applies to the Colorado Community College System, including its Colleges (CCCS or System).

BASIS

This procedure establishes System-wide standards for grading, repeating courses, terms dates, credits in residence and honors designations.

DEFINITIONS

Attempted Grades: Grades for a course in which a student enrolled and attempted to complete.

Developmental Education: Courses beginning with the digit "0" designed to enhance students' skills in Math, English, or other academic fields.

Developmental Grades: Grades for Developmental Education courses.

Earned Grades: Grades for a course that has been completed by a student.

GPA: Grade Point Average on a 4.0 scale.

Hours in Residence: These are credit hours completed at an institution or within a system.

PROCEDURES

Common Grading Symbols:

In order to standardize grading across the System, Colleges will use grades from a shared set of grading symbols. The full list of grades and symbols may or may not be used by all Colleges, but all grades issued by Colleges must be from the list below:

Grade	Quality Points	Interpretation
A	4	Excellent or Superior
B	3	Good (Above Average Achievement)
C	2	Average
D	1	Deficient
F	0	Failure Incomplete
I		Incomplete (Rolls to an F if not completed within required time period)

Note: In order to be eligible for an incomplete, a student is required to have completed over 75% of the coursework with a 'C' or better and must finish the coursework by the end of the next term, excluding summer. Colleges may make exceptions on a case-by-case basis.

Pass/Fail Grades:
P – Pass
F – Fail

A request for the P/F option must be submitted to the registration office. The P/F option may not be appropriate for courses.

College catalogs should identify the maximum number of P/F credits that may be applied to a degree or certificate.

A "P" grade will indicate that the quality of students' work in the course is equivalent to "C or better." "P" will count in attempted and earned credits but will not carry any quality points. Therefore, "P" grades will not be included in GPA calculations, however "F" grades will.

Developmental Grades:
P/A – Passing (A-level) work in a developmental course
P/B – Passing (B-level) work in a developmental course
P/C – Passing (C-level) work in a developmental course
F/D – Not-passing (D-level) work in a developmental course

F/F – Not-passing (F-level) work in a developmental course

I/F – Incomplete for developmental courses (Rolls to F/F if not completed within required time period)

Developmental Grades will not be included in a student's GPA or count towards attempted credits. GPAs for term recognition such as President's List, Vice President's List and Dean's List will not include developmental course grades in the calculation.

In order to be eligible for an incomplete, a student is required to have completed over 75% of the coursework with a 'P/C' or better and must finish the coursework by the end of the next term, excluding summer. Colleges may make exceptions on a case-by-case basis.

Withdrawal Grades:

W – Withdrawal – Student was withdrawn at their request after drop deadline, but prior to withdrawal deadline.

WX – Student was administratively withdrawn through appeal, no fault, etc.

WD – Student was administratively withdrawn for cause.

Transfer Grades:

A* – Transfer equivalent to an "A" standard grade

B* – Transfer equivalent to a "B" standard grade

C* – Transfer equivalent to a "C" standard grade

D* – Transfer equivalent to a "D" standard grade

F* – Transfer equivalent to an "F" standard grade

S* – Transfer equivalent to an "S" standard grade

P* – Transfer equivalent to a "P" standard grade

"C" or better grades will be accepted in transfer. Colleges may choose to transfer "D" grades on a case-by-case basis. Colleges will determine by program whether a "D" grade may be used to meet degree or certificate requirements. Even if a CCCS College accepts a D grade in transfer, it may nullify certain transfer agreements and does not guarantee that it will be accepted at other institutions of higher education. Satisfactory grades, "S" may be considered "P" grades for transfer purposes.

Other Grade Codes

*	Transfer Grade
AU	Audit
AW	Administrative Withdrawal (Prior to Summer 2021)
CNV	No Grade (Used for High School Level classes only)
CPL	Credit awarded through Credit for Prior Learning (Prior to Fall 2015)
CR	Credit
IP	In Progress
NC	No Credit
PLA	Prior Learning Assessment (Effective Fall 2015)
S	Satisfactory (Prior to Summer 2021)
S/A	Satisfactory (A-level) work in a developmental course (Prior to Summer 2021)
S/B	Satisfactory (B-level) work in a developmental course (Prior to Summer 2021)
S/C	Satisfactory (C-level) work in a developmental course (Prior to Summer 2021)
SP	Satisfactory Progress (Prior to Summer 2021)
U	Unsatisfactory (Prior to Summer 2021)
U/D	Unsatisfactory (D-level) work in a developmental course (Prior to Summer 2021)
U/F	Unsatisfactory (F-level) work in a developmental course (Prior to Summer 2021)
W	Withdrawal
Z	Grade not yet reported

AU – Audit

Pikes Peak State College (PPSC) offers two options for auditing – (1) Regular audit and (2) Veteran audit. Complete information related to the enrollment process for course audits can be found at pikespeak.edu/audit. General Information about auditing a course at Pikes Peak: By auditing a course, a student may participate in course activities, but does not receive a formal transcript grade and will not receive academic credit. To request a course audit, students must submit a request through the audit website by the deadline listed in the course schedule. Audited courses are not eligible for the College Opportunity Fund stipend. Students who wish to audit a class must meet all course specific pre-requisites. Some courses are excluded from auditing. See the website for full details on which courses are excluded. Audited courses do not meet the credit hour requirements for financial aid, Department of Defense or VA Education benefits and may not be applied to certificates or degrees.

Specific Information about each audit program: (1) Regular Audit - Students will be responsible for the full in-state or out-of-state tuition. (2) Veteran audit – Veterans may audit classes at PPSC for no cost to the veteran while funding is available. Veterans who want to audit a class under this program must submit a request through the audit website. Each request will be evaluated by Admissions and veteran students will be registered 1-2 days prior to the start of the semester if funding and class space are available.

CPL – Prior Learning Credit

A symbol of "CPL" indicates that the course and credits to which it is attached were awarded according to BP 9-42, Credit for Prior Learning.

I – Incomplete

The Incomplete grade is a temporary grade and is designed for students who, because of documented illness or circumstances beyond their control, are unable to complete their course work within the semester but have completed a majority of the course work (defined as at least 75 percent of all course assignments and tests) in a satisfactory manner (grade C or better).

If circumstances beyond the student's control prevent the student from completing a test or assignments at the end of the term, then it is the student's responsibility to initiate the request for an Incomplete grade from the instructor. The instructor will determine whether the student has a reasonable chance of satisfactorily completing the remaining course activities in a timely manner.

In requesting an Incomplete grade, the student must present to the instructor the documentation of circumstances justifying an Incomplete grade.

The instructor will complete and sign an Incomplete Grade Contract and will submit it to Student Services with final grades for the semester. The instructor must assign an incomplete grade on the regular grade roster in a timely fashion.

Incomplete Grade Contract must include the following information:

1. Student Name (F, MI, L)
2. Student ID #
3. Course Number and Section
4. Reason for assigning a grade of incomplete (statement of extenuating circumstances)

5. Work to be completed for removal of incomplete grade (instructor should be very specific including the work to be done and how the final grade is to be calculated)
6. Evidence of completion of 75 percent of the semester course work
7. Completion of a work plan that includes the following
   - What, when and how assignments and tests will be submitted to complete the course,
   - The time period in which the work must be completed.
8. Instructor Signature and Date
9. Student Signature and Date

Students are encouraged to let instructors know, as soon as possible, if they are having difficulties with any part of the course. In the event that a student and instructor cannot reach resolution concerning an Incomplete, then the student should contact the Chief Instructional Officer of the College.

Military personnel and emergency management officials who are required to go TDY in the middle of a term should contact their instructor for special consideration. Documentation of official TDY assignment is required and must be approved by the Chief Instructional Officer. If an Incomplete Grade is not viable for your TDY circumstances, meet with Military and Veterans Programs to discuss other options.

Incomplete Grade-Active-Duty exception: The Department of Defense requires all Incomplete Grades assigned in classes funded through Tuition Assistance to receive a final grade and have it reported to the respective branch of service within the following time frames: Army = 180 days, Navy = 180, Air/Space Force 12 months or school policy, Marines = 6 months, Coast Guard = 6 months.

Incomplete grades which are not converted to a letter grade by the instructor after one subsequent semester (not including summer semester) will revert to an F grade. If the student would have earned a letter grade higher than an F without completing the work, faculty should be encouraged to submit that higher grade before the automatic conversion to F.

PLA – Prior Learning Assessment

A symbol of "PLA" indicates that the course and credits to which it is attached were awarded according to BP 9-42, Prior Learning Assessment.

P/A, P/B, P/C

These are pass grades awarded only for developmental courses. The A, B, and C indicate the level of satisfactory/pass performance. These grades are not included in the GPA calculation. The course will count for attempted and earned credits.

F/D, F/F

These are fail grades awarded only for developmental courses. The D and F indicate the level of unsatisfactory/fail performance. These grades are not included in the GPA calculation. The course will count in attempted credits but will not carry earned credits.

S – Satisfactory/ P - Pass

The satisfactory/pass grade is equivalent to a grade of "C or better." The course will count in attempted and earned credits but will not carry quality points.

U – Unsatisfactory/ F – Fail

The unsatisfactory/fail grade is equivalent to a "D" or "F" grade. The course will count in attempted credits but will not carry earned credits or quality points.

SP – Satisfactory Progress

This symbol is limited to certain approved courses that extend beyond the end of a normal semester. No academic credit is awarded until the course is completed.

W – Withdrawal

The "Withdrawal" grade is assigned when a student officially withdraws from a course. A withdrawal can only be processed during the first 80 percent of the course. No academic credit is awarded. The course will count in attempted hours.

WD, WX – Administrative Withdrawal

This "withdrawal" grade is assigned by the College when a student has been withdrawn for administrative reasons. No academic credit is awarded. The course will count in attempted hours.

Z – No Grade Submitted

The grade of "Z" is a temporary grade entered by the Registrar when a grade is not received from the course instructor. This "Z" grade is replaced, and credit is awarded upon the Registrar's receipt of the grade.

Last Date of Attendance

Faculty are required to provide the last date of attendance for each student who is awarded an F or U/F grade.

Repeat Field

The Repeat Field on the transcript will be marked I – Include in hours and GPA calculation, A – Exclude from earned hours and GPA calculation, or A – Exclude from earned hours but count in GPA calculation.

NOTE: Courses with a grade of D or F are not generally transferable and will not transfer to other institutions under GT Pathways or the 60+60 Bachelor's Degree Transfer program.

Grading Options

Satisfactory/Unsatisfactory / Pass/Fail: students may request to take up to six credit hours each semester on a Satisfactory/Unsatisfactory (SU) / Pass/Fail (PF) grading basis. They may take a maximum of 15 credit hours under this grading option while enrolled at PPSC. (Credit hours earned in a course where SU / PF is the only grading standard count toward this 15-hour maximum). Students must have prior approval by the appropriate division dean for each course unless the course is only offered with the SU / PF option. This option must be requested at the time of registration. After the drop/add period, this option may not be changed except by written recommendation from the appropriate division dean and approval by the Vice President for Instructional Services. Pikes Peak State College considers a grade of C or better to be satisfactory/passing. A satisfactory/pass grade earned under this option does not affect the Grade Point Average (GPA) but increases the total number of credit hours passed. Grades of D or F will be considered unsatisfactory/fail, will affect the GPA, and will increase the total number of credit hours attempted.

Audit: students may register to audit any course by indicating this option on the registration form through the audit website registration form. The regular tuition rate applies for the regular

audit option; veterans who opt for the veteran audit option may audit the class for no cost while funding is available. After the posted drop date, students may not change their registration from credit to audit, or from audit to credit, except by written recommendation from the appropriate division dean and approval by the Vice President for Instructional Services. Audit grades do not transfer and are not computed in the GPA. Courses taken by audit do not count toward enrollment status for financial aid or veterans' educational benefits and are not eligible for the COF stipend.

Grade Changes

A change of grade (other than from an Incomplete) is permitted only as a result of faculty/instructor or administrative error in calculating, posting, or recording a grade.

A student has one full year from the time in which the grade was issued to submit a written request for a grade reevaluation to the faculty member. The process is as follows:

Grade review with faculty/instructor. If no resolution is reached or satisfactory explanation given, then:

Review by department chair. If no resolution or satisfactory explanation, then:

Review by division dean or assistant dean. If no resolution is reached or satisfactory explanation given, then:

Review by the Vice President for Instructional Services or the appointed Assistant to the Vice President for final resolution.

An Incomplete (I) grade may be removed when the remaining class objectives are completed by the date indicated on the "Incomplete Course Agreement" form or no later than the end of the next full 15-week semester. The resulting change of grade is made by the instructor of record and is approved by the appropriate instructional division dean. Course work not completed within the allotted time will be assigned a Failing (F) grade. Students may not re-enroll in a class in which an incomplete grade is pending, since according to the College's definition of enrollment, they are still enrolled.

How to Calculate Your GPA

Grade Point Average (GPA) is calculated by dividing the total amount of grade points earned by the total amount of credit hours attempted. It may range from 0.0 to 4.0 Satisfactory/Unsatisfactory (S/U) grades are not factored in the student's GPA. Incompletes (I) or Withdrawals (W) do not receive grade points and do not have an effect on the GPA.

Repeated Courses

When a course is repeated, regardless of initial grade earned, the highest grade earned will be calculated in the GPA. However, all grades earned at PPSC will appear on the transcript. A course may be used only once to meet graduation requirements for any degree or program.

Academic Renewal

Principle

Designates parameters for Academic Renewal.

Guideline

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 calculation/s.
- Academic Renewal applies to D, F and U grades only.
- In order to apply for Academic Renewal, students must wait a minimum of two academic years from the last term being considered for Academic Renewal.
- Students must be enrolled and have completed at least 6 hours with a 2.0 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 6 credit hours with a 2.0 term GPA during last semester of attendance at the four-year institution.
- Students can only apply for Academic Renewal once, and it is not reversible.
- Students at Pikes Peak State College are required to meet with an academic advisor prior to submitting a request for Academic Renewal.

PPSC Policy

At the conclusion of each semester students will receive their grades and be notified by the Registrar regarding their Academic Standing via email to their college assigned student email.

Students placed on Academic Suspension will be dropped from their classes.

For students on Academic Suspension there is an appeal process that is outlined in the notification they receive from the Registrar regarding their academic standing.

Students wishing to file an appeal for an exception to the academic suspension policy need to:

1. Students will be required to complete an Academic Suspension Appeal Form
2. Students will be required to submit a letter of appeal
3. Students will be required to submit a copy of their most recent unofficial transcript
4. Students can submit any other relevant documentation; examples can be found on the Appeals page www.pikespeak.edu/appeal

The completed appeal form and supporting documents will be reviewed by the Academic Suspension Appeals Committee which includes a representative from each Instructional Division as well as Student Services. Students will be notified via their student email of the Committee's decision regarding their request for an exception to the academic suspension policy and any conditions that apply to their reinstatement. The Academic Suspension Appeals Committee may uphold the suspension; may grant the appeal without conditions; or may grant the appeal with conditions such as limiting the number of credit hours a student may register for, or requiring a study skills class, etc. The Academic Suspension Appeals Committee's decisions are final and may not be appealed further. There is no guarantee that a student who is granted an appeal will be allowed to re-enroll in the classes from which the student was previously dropped for being on academic suspension.

The last day to file an Academic Suspension Appeal is always the Friday just prior to the last week of registration before each semester.

Academic Progress

Application
This procedure applies to the Colorado Community College System, including its Colleges (CCCS or System).

Basis
This procedure concerns the admission and enrollment of students at CCCS and establishes a procedure for student load, time status, late registration, and academic renewal.

Procedure

Academic Standing

Academic Standing describes a student's successful progression with respect to maintaining progress toward their degree or certificate program. Academic Standing applies to all students who have completed 9 or more credits at a CCCS College. Academic Standing shall be applied consistently and uniformly within each College.   Colleges will determine Academic Standing following the posting of the majority of term grades for each semester, and academic standing may be recalculated based on late or adjusted grades. For students who have completed fewer than 9 credit hours, the College will monitor satisfactory academic progress through an Academic Alert process. These students are not subject to Academic Standing.

Academic Standing values include the following:

- "Initial Standing" – Student has completed fewer than 9 cumulative credit hours with a cumulative GPA greater than or equal to 2.00 for all classes completed.
- "Academic Alert" – Student has completed fewer than 9 cumulative credits with a cumulative GPA less than 2.00 for all classes completed.
- "Good Standing" – Student has completed at least 9 cumulative credit hours and has a cumulative GPA greater than or equal to 2.00 for all classes completed.
- "Performance Support" – Student has completed at least 9 cumulative credit hours and has a cumulative GPA less than 2.00 for all classes completed. This value was previously referred to as "Academic Probation."
  - o   By the conclusion of the Performance Support term, the student must raise their cumulative GPA to at least 2.00. If this condition is met, the student returns to Good Standing. Otherwise, the student will be Performance Improving or on Academic Suspension as outlined below.
- "Returning Support" – Student is returning from Academic Suspension.
  - o   By the conclusion of the Returning Support term, the student must raise their cumulative GPA to at least 2.00. If this condition is met, the student returns to Good Standing. Otherwise, the student will be Performance Improving or on Academic Suspension as outlined below.
- "Performance Improving" – If a student on Performance Support or Returning Support earns a term GPA of at least 2.00 for all classes completed during the term but fails to raise their cumulative GPA to at least 2.00 for all classes completed, the student will be allowed to attend the next term as Performance Improving. This value was previously referred to as "Probation Continuing."
  - o   As long as the student continues earning a term GPA of at least 2.00 during each term, they will be permitted to continue attending. The student will remain on Performance Improving until the cumulative GPA is at least 2.00, at which time they will return to Good Standing.
  - o   If the student does not earn a term GPA of at least 2.00 while on Performance Improving, they will be placed on Academic Suspension.
- "Academic Suspension" – If a student on Performance Support, Returning Support or Performance Improving earns a term GPA of less than 2.00 for all classes completed during the term, the student will be suspended and will not be allowed to enroll at the College issuing the suspension for the next term unless an appeal is approved. The student may be dropped from all registered courses for an upcoming term at the College based on the College's procedures.

Academic Suspension:

All academic suspensions are for one term only. If a student who has served a suspension wishes to return, the student will be allowed to re-enroll only after meeting with an academic advisor. The student will be placed on Returning Support for their return semester. Students suspended from one College are not suspended from other Colleges within the System.

Appeals Process:

Students placed on Academic Suspension will be notified of their status and given the opportunity to appeal. Students must appeal their suspension based on procedures developed by the College issuing the suspension in order to continue enrolling at that College. Each College's appeal process should incorporate an element where the student demonstrates what has changed and why they will perform better in the future. Appeal consideration will be based on statements and documentation as submitted by the student. College processes for approving or denying appeals must be based upon objective factors.

If the College approves an appeal, appeals for subsequent Academic Suspensions should address why the student was unsuccessful on the prior appeal, and what additional measures have been taken to ensure success.

If the student's suspension appeal is approved, the student will be placed on Performance Support.

If the student's suspension appeal is not approved, the student may be dropped from all courses registered for in upcoming terms at the College, based on the College's procedures.

Academic Concerns

Any student who wishes to pursue an instructional concern or change of grade must exhaust the following options in sequence prior to petitioning the Vice President for Instructional Services. (Examples of instructional or course concerns deal with instructor behavior, class policies, and unfair expectations or demands.)

1. The student must meet with the instructor and attempt to resolve the problem. If no resolution:

2. The student must state the concern in writing and meet with the Department Chair (in the case of an adjunct instructor) or Dean / Associate Dean (in the case of a faculty member). Departments may require specific documentation. Please contact the appropriate division. If no resolution:

3. The student will meet with the Dean.

If the student contests the Dean's decision, he/she must submit the request in writing to the Office of the Assistant to the Vice President for Instructional Services. The request should include documentation of everything that the student wants considered in the decision. The Dean will also submit all written documentation and recommendations. The Vice President for Instructional Services or a designee will notify the student of the decision in writing. This decision will be final.

Credits in Residence

A student must complete 25% of their credits in residence at the College that will confer the degree or certificate. A College may consider an appeal to award a degree or certificate to a student transferring from another CCCS College and who has not completed 25% of their credits in residence. In order to approve the appeal, the College must be able to explain and justify its decision.

Two or more CCCS Colleges may enter into a Memorandum of Understanding (MOU) that would allow students to complete a degree or certificate without satisfying the 25% credits in residence requirement. The MOU must be signed by each participating College, shared with the Vice Chancellor for Academic and Student Affairs, and provided to the Higher Learning Commission.

Term Academic Honors

PPSC provides an opportunity for students to be recognized with Academic Honors, on a term-by-term basis. Students who qualify will receive a notation for that term on their official transcripts.

Term Grade Point Averages required to qualify for these Term Academic Honors, are as follows:

Dean's List:	3.50 – 3.749
Vice President's List:	3.75 – 3.99
President's List:	4.00

SU / PF grades and grades for Developmental Education coursework are not included in the Grade Point Average (GPA) Calculation. Students must complete a minimum of 6 eligible credit hours in the term to be considered for Term Academic Honors.

Awarding of summer term honors is at the discretion of the College.

Graduation Honors

Graduation honors are awarded to students who complete the requirements for a degree and earn a 3.5 or better cumulative GPA at the College. Only college-level courses completed at the College will be included in the GPA calculation. A minimum number of 15 credits taken at PPSC is required to be eligible for graduation honors. The three levels of recognition are defined as follows and will be posted on the student's transcript.

	Cumulative GPA
Cum Laude (with honor)	3.50 to 3.749
Magna Cum Laude (with great honor)	3.75 to 3.99
Summa Cum Laude (with highest honor)	4.00

Application for Certificate or Degree

Prior to applying for graduation, students should meet with an academic advisor in Advising and Testing or their faculty advisor to ensure that they are close to graduating. When students have verified that they are close to graduating, they must file an application for graduation. Once students have applied, their application will undergo an audit to see if they have completed all the necessary coursework. Degrees and certificates will be granted during the semester in which the final requirements are completed. Students need to apply for graduation by the published deadlines. The application for graduation and deadlines can be found at www.pikespeak.edu/academics/records/graduation/.

Auto-Conferral

Mid-way through the Fall and Spring semesters, the Records Office will research records of students who have attended PPSC in the previous three semesters to identify and automatically award those who are determined to be eligible for a degree or certificate based on courses taken at PPSC. Awards will be posted at the end of the semester.

Graduation Ceremony

Each May, PPSC produces a gala graduation ceremony to honor graduating students. To participate, you must be eligible for graduation and must submit an Application for Graduation online by the deadline. Potential graduates will receive an initial letter of information about graduation from the Student Life Office. Caps, gowns, tassels and instructions on the ceremony are all available through the Bookstore. If you are eligible, join us for this festive celebration of your success! The 2024 ceremony will include eligible participants who graduated Summer 2023, Fall 2023 and anticipated graduates in Spring 2024.

Participation in the graduation ceremony does not imply that a degree has been awarded. All degree requirements must be met before a degree is awarded.

Assessment of Student Learning

Assessment is the ongoing process of establishing measurable learning outcomes, providing students with sufficient opportunities to achieve those outcomes, systematically gathering evidence of student learning, and using the resulting findings to confirm and improve student learning. PPSC's assessment framework reflects the vision of the College as stated in the 2016-2022 Strategic Plan and aligns with regional and programmatic accreditation standards. With the guidance of Assessment Coaches, academic departments regularly assess what students know or are able to do upon completion of individual courses/programs and document how assessment results are used to continuously improve teaching and learning.

Assessment of student learning in Career and Technical Education degree programs focuses on the skills and knowledge that employers consider are most important to workplace success. Those program-level outcomes are generally driven by field competencies and industry standards. In the general education disciplines, assessment of student learning focuses on a number of essential skills also known as general education learning outcomes. In Fall 2016, PPSC voted to adopt the following statewide gtPATHWAYS competencies as its general education learning outcomes.

- Civic Engagement - Actions wherein students participate in activities of personal and public concern that are both meaningful to the student and socially beneficial to the community.
- Creative Thinking - Capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way

characterized by a high degree of innovation, divergent thinking, and risk taking.

- Critical Thinking - Ability to analyze information and ideas from multiple perspectives and articulate an argument or an opinion or a conclusion based on their analysis.
- Diversity & Global Learning - Ability to critically analyze and engage complex, interdependent structures and constructs and their implications for individuals, groups, communities, or cultures.
- Information/Literacy - Skills needed to find, retrieve, analyze, and use information.
- Inquiry & Analysis - Inquiry is the systematic process of exploring issues/objects/works through the collection and analysis of evidence that results in informed conclusions/judgments. Analysis is the process of breaking complex topics or issues into parts to gain a better understanding of them.
- Oral/Presentational Communication - Ability to deliver a well-prepared and purposeful presentation grounded in credible information and organized effectively.
- Problem Solving - Ability to design, evaluate, and implement a strategy to answer a question or achieve a goal.
- Quantitative Literacy - Ability to use quantifiable information and mathematical analysis to make connections and draw conclusions.
- Written Communication - Ability to write and express ideas across a variety of genres and styles.

PPSC's philosophy of general education aligns with the Colorado Community College System (CCCS) State Board Policy on General Education (BP 9-40) which states: "General education is 'general' in several clearly identifiable ways: it is not directly related to a student's formal technical, vocational or professional preparation; it is a part of every student's course of study, regardless of his or her area of emphasis; and it is intended to impart common knowledge, intellectual concepts, and attitudes which every educated person should possess." PPSC values the skills and competencies that its general education curriculum provides to students, preparing them for advanced education, employment, and participation in an increasingly diverse and global society.

More information about PPSC's assessment of student learning framework can be found at www.pikespeak.edu/about/assessment/.

Research Activities

PPSC encourages and supports the scholarly endeavors of its students. Pursuit of scholarly work and research often involves the use of human subjects for data collection and analysis. PPSC's Institutional Review Board (IRB) reviews human subjects research proposals to ensure that i) the rights and welfare of human subjects used in research studies are protected, ii) risks have been considered and minimized, iii) the potential for benefit has been identified and maximized, iv) all human subjects only volunteer to participate in research after being provided with legally effective informed consent, and v) any research is conducted in an ethical manner and in compliance with established standards. Students seeking to conduct such research may not solicit subject participation or begin data collection until they have obtained clearance by the PPSC IRB. Forms and operating procedures are available at www.pikespeak.edu/institutional-effectiveness/irb.

CCCS reserves the right to change any provision or requirement of this procedure at any time and the change shall become effective immediately.

STUDENT CONDUCT

In This Section

Code

The College considers the behavior described in the following subsections as inappropriate and in opposition to the values of the College community. These responsibilities apply to all students, including continuing education. The College encourages and expects students, faculty, and staff to engage as active bystanders and report to College officials incidents that involve the following behaviors. Any student found to have violated or to have attempted to violate the following responsibilities may be subject to the conditions, restrictions, and outcomes outlined in SP 4-30a, Student Behavior Expectations and Responsibilities Resolution Procedure.

The following section is organized alphabetically by violation followed by an explanation.

Abuse of Conduct Process: Abuse or interference with College processes, including conduct and academic integrity meetings:

- Falsification, distortion, or misrepresentation of information.
- Failure to provide, destroying, or concealing information during an investigation of an alleged Code violation.
- Attempting to discourage an individual's proper participation in, or use of, the campus conduct system.
- Inappropriately influencing any member of the campus community with conduct authority prior to, during, and/or following a campus conduct proceeding.
- Influencing or attempting to influence another individual to commit an abuse of the campus conduct process.

Academic Integrity: 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 for academic behavior. Students who engage in any type of academic dishonesty are subject to both academic consequences as determined by the instructor and to outcomes as set forth in the Student Behavioral Expectations and Responsibilities Resolution Procedure.

- Cheating: The act of using or attempting to use an examination or other academic work, material, information, or study aids which are not permitted by the instructor. Cheating includes, but is not limited to:

- Using books, notes, or calculators or copying from or conversing with others during examinations (unless such external aids are permitted by the instructor).
- Having someone else do research, write papers, or take examinations for someone else.
- Submitting work completed in one class to fulfill an assignment in another class without prior approval from the instructor(s).
- Stealing, distributing, selling, and buying tests or having someone take an exam on someone else's behalf.
- Fabrication: The invention of material or its source and its use as an authority in academic work. Fabrication includes, but is not limited to:
  - Inventing the data for a scientific experiment.
  - Inventing the title and author of a publication in order to use the invented publication as a source.
  - Knowingly attributing material to an incorrect source.
- Plagiarism: The act of using someone else's work without giving proper credit to the original source. The work can be written, artistic, musical, language, symbols, or media. Reusing one's own prior work without proper citation (or approval of instructor) is also plagiarism.

Alcohol/Drugs: Use, being under the influence, manufacturing, possession, cultivating, distribution, purchase, or sale of alcohol and/or drugs (illegal and/or dangerous or controlled substance) and/or alcohol/drug paraphernalia while on College-owned or College-controlled property, and/or at any function authorized or supervised by the College, and/or in state owned or leased vehicles.

Animals/Pets: Animals are not permitted on campus except as permitted by law or as specifically approved by the College.

- Please see SP 4-120b, regarding Student Disability Services for information related to service animals and emotional support animals.
- Please see the appropriate handbook for regulations and processes for animals and pets in student housing, where applicable.

Bullying/Non-physical abuse: Bullying includes repeated and/or severe aggressive or negative actions or behaviors intentionally or reasonably likely to intimidate, hurt, control, or diminish another person, physically, mentally, or emotionally. Bullying may include direct or indirect communications in verbal or nonverbal form and specifically includes bullying by electronic means (e.g., cyberbullying).

For more information and compliance, see SP19-10, Bullying/Violence/Firearms on Campus.

Damage and Destruction: Reckless and/or unauthorized damage to, or destruction of, College property or the individual property of another, regardless of intention. Damage or destruction of community, public, or private property.

Deceitful Acts: Engaging in deceitful acts, including, but not limited to: collusion, forgery, falsification, alteration, misrepresentation, non-disclosure, or misuse of documents, records, identification and/or educational materials.

- Collusion: Action with another or others to violate the Code.
- Falsification: Knowingly furnishing or possessing false, falsified, or forged materials, documents, accounts, records, identification, or financial instruments, including electronic forgery and/or manipulation.

Discrimination and Harassment: Discrimination is any distinction, preference, advantage, or detriment given to a person based on one or more actual or perceived protected classes. Harassment is a form of discrimination that includes Quid Pro Quo and Hostile Environment.

- Hostile Environment occurs when a person is subjected to verbal or physical conduct based on a protected class that is sufficiently severe, persistent or pervasive, and objectively offensive to alter the conditions of a person's employment or unreasonably interfere with a person's ability to participate in or benefit from CCCS educational programs or activities, from both a subjective and objective viewpoint.
- Quid Pro Quo is a type of sexual harassment that exists when an employee conditions the provision of an aid, benefit, or service on an individual's participation in unwelcome sexual conduct, such as unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature.
- Sexual harassment includes, but is not limited to, dating violence, domestic violence, stalking, and sexual assault.
- For more information and how to file a complaint regarding discrimination or harassment, including sexual misconduct, see SP 19-60, Civil Rights and Sexual Misconduct Resolution Process.

Disruptive Behavior: Engaging in any behavior that negatively affects or impedes teaching or learning (regardless of mode of delivery or class setting) or disrupts the general operation of the College.

Endangerment or Defacement: Conduct that is detrimental to the College, and/or to community safety. Examples include, but are not limited to, slamming doors, throwing chairs, and/or defacing of College property or property of others.

Failure to Comply:

- Failure to comply with or follow the lawful directives of College employees acting within the scope of their duties, including those directives issued by a College administrator to ensure the safety and well-being of others.
- Failure to comply with or follow the directives and/or sanctions imposed under CCCS policies and procedures.
- Failure to identify oneself to College officials, acting in their official capacity, when requested to do so.

Fire Safety: Violation of federal, state, local, or campus fire policies including, but not limited to:

- Intentionally, recklessly, or negligently causing a fire that damages the College, individual property, or causes injury.
- Failure to evacuate a College owned, operated, or controlled facility during a fire alarm.
- Improper use of College fire safety equipment.
- Tampering with or improperly engaging a fire alarm or fire detection/control equipment while on College property. Such action may result in a criminal action.

Gambling: Gambling as prohibited by the laws of the State of Colorado. Gambling may include, but is not limited to, raffles, lotteries, sports pools, and online betting activities. Participation in illegal gambling activities on College-owned or College-controlled property, and/or at any function authorized or supervised by the College, and/or in state owned or leased vehicles.

Harm to individuals: Intentionally or unintentionally causing physical harm, threating to cause harm, endangering the health and/or safety of any individual, or demonstrating violent behavior.

- Violent Behavior includes any act or threat of physical, verbal or psychological aggression, or the destruction or abuse of property by any individual.
- A threat is defined as direct or indirect, verbal or non-verbal conduct (including those made in person, by mail, over the telephone, by email, or by other means) intended to result or reasonably resulting in intimidation, harassment, harm, fear or endangerment of the safety of another person or property.
- For more information and compliance, see SP 19-10, Bullying/Violence/Firearms on Campus.

Hazing: Defined as an act that endangers the psychological, emotional, intellectual, and/or physical health and/or safety of a student, or that destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group, team, or organization. Additionally, any act that places a student in a subservient role within an organization is considered hazing. Participation or consensual cooperation by the individual(s) being hazed does not excuse the violation. Failing to intervene to prevent, failing to discourage, and failing to report those acts may also violate this code.

Indecent Exposure: Deliberately and publicly exposing one's intimate body parts, public urination, defecation, and public sex acts.

Retaliation: Retaliatory acts include, but are not limited to, intimidation, verbal or physical threats, harassment, coercion, or other adverse action(s) against a person who reports an incident of misconduct.

Rioting: Causing, inciting, or participating in any disturbance that presents a clear and present danger to self or others, causes physical harm to others, or results in damage and/or destruction of property.

Theft: Obtaining, retaining or exercising control over property of another without authorization, or by threat or deception, with the purpose and/or effect of depriving the person(s) to whom the property belongs of its use or benefit.

Tobacco Violation: Smoking and the use of tobacco and related products, including electronic smoking, where contrary to applicable laws or policies established by the College. This includes smoking inside buildings or in areas where smoking is posted as prohibited.

Trademark Violation: Unauthorized use, including misuse, of the College or organizational names and images without the express written consent of the institution or organization.

Unacceptable Use of College Equipment, Network or System: Unacceptable uses of any College-owned or operated equipment, network or system including, but not limited to: knowingly spreading computer viruses; reposting personal communications without the author's consent; copying protected materials; using the network for financial or personal gain, commercial activity, or illegal activity; accessing the network using another individual's account; unauthorized downloading/uploading software and/or digital video or music; downloading/uploading, viewing or displaying pornographic content, or any other attempt to compromise network integrity. For more information, see SP 4-32, Student Email Acceptable Use.

Unauthorized Access and Entry: Unauthorized access to any College facility, including misuse of keys, cards, restricted access areas, or unauthorized possession, duplication or use of other individual's means of access to any College facility; failing to

provide a timely report of a lost College identification card or key; misuse of access privileges to College premises or unauthorized entry to or use of facilities, including trespassing, propping, or unauthorized use of alarmed doors for entry into or exit from a College facility.

Violation of Laws, Directives and Signage: Violating any municipal, county, state or federal laws, or executive orders, or violating any public health orders in a manner that adversely impacts the health and well-being of the campus environment and those on campus.

Weapons Violation: Possession, use, or distribution of explosives (including fireworks and ammunition), guns (including air, BB, paintball, facsimile weapons, and pellet guns), or other weapons or dangerous objects, such as arrows, axes, machetes, nunchaku, throwing stars, or knives with a blade of longer than three (3) inches. This includes the unauthorized storage of any item that falls within the category of a weapon, including storage in a vehicle parked on College property, other than what is expressly permitted by law.

- Possession of an instrument designed to look like a firearm, explosive, or dangerous weapon is also prohibited by this policy.
- Intentionally or recklessly using and/or possessing a weapon or any other item in such a way that would intimidate, harass, injure, or otherwise interfere with the learning and working environment of the College shall face increased consequences.
- Students, faculty, and staff possessing valid Colorado Concealed Handgun Licenses are permitted to carry concealed weapons on campus in accordance with state law and CCCS policy. For more details about certain restrictions, please consult with the campus/local police and/or the Housing and Residential Education Handbook, where applicable.
- For more information and compliance, see SP 19-10, Bullying/Violence/Firearms on Campus.

Violation of course, program, or activity rules: Violation of established rules as contained in courses, programs activities, regulations, or guidelines and established by departments, regulatory boards, or licensing bodies, including all Housing and Residential Education policies, as applicable.

Group Violations

A student group or organization and its officers and membership may be held collectively and individually responsible when violations of this Code occur by the organization or its member(s), including the following conditions:

- Violation(s) take place at organization-sponsored or co-sponsored events, whether sponsorship is formal or implied.
- Violation(s) have received the consent or encouragement of the organization or of the organization's leaders or officers.
- Violation(s) were known or should have been known to the membership or its officers.

Conduct meetings for student groups or organizations shall also follow the Student Behavioral Expectations and Responsibilities Resolution Procedure. In any such action, individual determinations as to responsibility will be made and restrictions, conditions, and outcomes may be assigned collectively and individually, and will be proportionate to the involvement of each individual and the organization. Procedures will begin with communication to the President or leadership of said organization.

Amnesty

Assisting an individual by calling for help in an alcohol or drug-related emergency means neither the person who calls for help, nor the person who needs help will be subject to formal investigation nor receive a formal conduct record for their behavior. Students seeking assistance under these provisions may be required to meet with the SSAO and to complete educational, counseling, or other requirements aimed at addressing health and safety concerns. The requirements will be informal or on a deferred basis.

The student must fully comply with reporting to appropriate College officials for amnesty to be considered.

Student Grievance Procedure

Reference

Board Policy 4-31; SP 4-31a

Application

The procedure applies to students within the Colorado Community College System (CCCS).

Basis

This Student Grievance Procedure is intended to allow students an opportunity to present an issue which they feel warrants action, including the right to secure educational benefits and services.

If the basis of the claim is discrimination and/ or harassment based on federal or state civil rights laws, the student must file a grievance under the Civil Rights Grievance and Investigation Process. If the accused (respondent) is a student, please refer to SP 4-31a. If the respondent is a CCCS employee, please refer to SP 3-50a.

Definitions

Complainant(s) is a person who is subject to alleged inequity as it applies to Board Policies, System President's Procedures, or College Procedures. For purposes of this procedure, a complainant is student who was enrolled at the time of the alleged incident.

Respondent(s) is a person whose alleged conduct is the subject of a complaint. For purposes of this procedure, a respondent can be a CCCS employee(s), student(s) who was enrolled at the time of the alleged incident, authorized volunteer(s), guest(s), visitor(s), or college.

Grievance: A grievable offense is any alleged action which violates or inequitably applies State Board Policies, System President's Procedures, and College Procedures. The complainant must be personally affected by such violation or inequitable action.

Non-grievable matters: The following matters are not grievable under this procedure except as noted: matters over which the college is without authority to act; grades and other academic decisions unless there is an allegation that the decision was motivated by discrimination and/or harassment which should be filed under the appropriate Civil Rights Grievance and Investigation Process.

Chief Student Services Officer (CSSO): The college employee designated by the college president to administer student grievances. The CSSO may delegate the responsibility over student grievances to another person.

Notice: Notices which are required to be given by this procedure shall be considered served upon the student when given by personal delivery, mailing by certified mail, or email with receipt notification to the address the student has filed with the College's admissions and records office. If notice is mailed, student shall be given three (3) additional days to respond.

Day: Refers to calendar day unless otherwise noted below.

Remedy: The relief that the Grievant is requesting.

Filing a Complaint

All complaints shall be made as promptly as possible after the occurrence. A delay in reporting may be reasonable under some circumstances; however, an unreasonable delay in reporting is an appropriate consideration in evaluating the merits of a complaint or report.

Procedures

Students must timely submit all grievances in writing (See Appendix) to the CSSO. The grievance should clearly and concisely describe the alleged incident(s), when and where it occurred, and the desired remedy sought. The grievance should be signed by the initiator or, in the case of an email submission, sent as an email attachment, in letter format and should contain the name and all contact information for the grievant. Any supporting documentation and evidence should be referenced within the body of the formal grievance. Additionally, the initiator of a formal grievance should submit any supporting materials in writing as quickly as is practicable.

The complainant's supporting documentation should clearly demonstrate all informal efforts, if any, to resolve the issue(s) with the person involved and the person's supervisor. This includes names, dates and times of attempted or actual contact along with a description of the discussion and the manner of communication made in the course of each effort. If contacting the person involved and/or the supervisor is impracticable, the complainant should state the reasons why.

The CCCS community benefits from informal and formal procedures that encourage prompt resolution of complaints and concerns students may have about the implementation of policies and procedures that govern the institution.

Informal Grievance Process

Complainant is encouraged to resolve the issue with the Respondent through the informal process. The CSSO shall facilitate the informal process. If the informal grievance process is unsuccessful, or if CCCS or the complainant chooses not to pursue the informal process, the CSSO will open a formal grievance case.

Formal Grievance Process

Complainant must timely file a written statement of the actions complained of and describes the remedy s/he is seeking with the CSSO. A matter could also be referred to this process by the College president or his/her designee. Once a written grievance is filed or referred, the CSSO or designee will determine whether or not the situation states a grievable offense. The matter will be closed if the situation is determined not grievable and the Complainant will be notified of the reasons.

If the matter is determined to be grievable, the CSSO will request a meeting (hearing) with both the complainant and respondent. Both parties will be given the opportunity to discuss the allegations of the grievance and may offer any documentation, witnesses, or other materials in support of the complaint. During this hearing, neither party may have a representative, including attorneys or law students. These procedures are entirely administrative in nature and are not considered legal proceedings.

No audio or video recording of any kind other than as required by institutional procedure is permitted.

The CSSO may also contact or request a meeting with relevant college staff, students, or others as part of the investigation.

At the CSSO's discretion, the CSSO may discontinue meetings with anyone that is causing a disruption to the process or is being uncooperative and will proceed to make a determination based on the information known at that time.

Based on the preponderance of evidence, the CSSO shall issue a decision, in writing, to both the complainant and respondent. The decision shall reject or grant the grievance and make recommendation(s) to resolve the issue(s). The complainant and respondent shall be advised of his/her right to appeal the decision, subject to the grounds below, by filing a written appeal with the CSSO within seven (7) days of service of the Decision.

In the event of an appeal, the CSSO shall give written notice to the other party to allow him/her the opportunity to submit a response in writing. The CSSO will also draft a response memorandum (also shared with all parties). All appeals and responses are then forwarded to the appeals officer or committee for initial review to determine if the appeal meets the limited grounds and is timely. The original finding will stand if the appeal is not timely or substantively eligible, and the decision is final. If the appeal has standing, the documentation is forwarded for consideration. The party requesting appeal must show error as the original finding is presumed to have been decided reasonably and appropriately. The ONLY grounds for appeal are as follows:

1. A procedural or substantive error occurred that significantly impacted the outcome of the hearing (e.g., substantiated bias, material deviation from established procedures); or

2. To consider new evidence, unavailable during the original hearing or investigation, that could substantially impact the original finding. A summary of this new evidence and its potential impact must be included in the written appeal.

If the appeals officer or committee determines that new evidence should be considered, it will return the complaint to the CSSO to reconsider in light of the new evidence, only.

If the appeals officer or committee determines that a material procedural or substantive error occurred, it may return the complaint to the CSSO with instructions to reconvene the hearing to cure the error. In rare cases, where the procedural or substantive error cannot be cured by the CSSO in cases of bias, the appeals officer or committee may order a new hearing be held by a different individual acting in the place of the designated CSSO. The results of a reconvened hearing cannot be appealed. The results of a new hearing can be appealed, once, on the two applicable grounds for appeals.

Special Grievance Process Provisions

- In the event that the student is under the age of eighteen or incapacitated, s/he may have an advisor present to assist him/her in presenting his/her case.
- Students do not have the right to be represented by an attorney or law student during these proceedings except in the case where civil or criminal actions concerning the student are pending and in that case the attorney's role shall be advisory only.
- The student is responsible for presenting his/her own case and, therefore, advisors are not permitted to speak or to participate directly in any hearing except when the student is under the age of eighteen or incapacitated.

- Student shall have the right to identify documents, witnesses, and other material he/she would like the CSSO to review before making a final decision.
- Any hearing held shall be conducted in private unless all parties agree otherwise.
- A record of the hearing should be maintained by the CSSO.
- If student has a disability and would like to request an accommodation to assist him/her through the grievance process they may do so by informing the CSSO. The CSSO will then work with disability support services to accommodate the request.
- If the grievance is against the CSSO, the Chief Academic Officer or other person designated by the president shall perform the duties of the CSSO.
- Jurisdiction-College grievance proceedings may be instituted over incidences that occur or are related to College or college-sanctioned activities or was of such a nature to impact upon the college.
- Proceedings under this procedure may be carried out prior to, simultaneously with, or following civil or criminal proceedings off-campus.
- Standard of proof-the college will use the preponderance of evidence standard in the grievance proceedings, meaning, the college will determine whether it is more likely than not the complainant was subjected to inequity as it applies to Board Policies, System President's Procedures, or College procedures.
- The procedural rights afforded to students above may be waived by the student.

Retaliatory Acts

It is a violation of the grievance procedure to engage in retaliatory acts against any employee or student who files a grievance or any employee or student who testifies, assists, or participates in the grievance proceeding, investigation or hearing relating to such grievance.

Revising this Procedure

CCCS reserves the right to change any provision or requirement of this procedure at any time and the change shall become effective immediately.

For information about the student grievance process, contact the Dean of Students office, 719-502-2367.

Civil Rights and Sexual Misconduct Resolution Process

Reference

Board Policy (BP) 19-60; System Procedure (SP) 19-60

Application

This procedure applies all students, employees, authorized volunteers, guests, and visitors of the Community Colleges within CCCS. Allegations that an individual has engaged in any discriminatory, harassing, and/or retaliatory behavior, including Sexual Misconduct, after the effective date of this procedure will be resolved under this procedure.

Basis

BP 19-60 provides that individuals affiliated with PPSC shall not discriminate or harass on the basis of sex, gender, race, color, age, creed, national or ethnic origin, ancestry, physical or mental disability, familial status, veteran or military status, pregnancy status, religion, genetic information, gender identity, sexual orientation, or any other protected class or category under applicable local, state or federal law (also known as "civil rights laws"), in connection with employment practices or educational programs and activities (including in admissions). BP 19-60 further provides that individuals affiliated with PPSC shall not retaliate against any person who opposes discrimination, harassment, or retaliation, or participates in any complaint or investigation process.

Filing a Complaint

Any person who believes they have been subjected to a civil rights violation should follow this procedure to report their concerns. PPSC will act on any complaint brought to the attention of the Title IX/EO Coordinator that is made under this procedure.

Preliminary Steps and Timeline

Upon receipt of a complaint, the Title IX/EO Coordinator will review the complaint to determine whether the complaint alleges sufficient information to support that a civil rights violation has occurred (reasonable cause). If the Title IX/EO Coordinator is unable to make this determination in reviewing the complaint alone, the Title IX/EO Coordinator may, at their discretion, reach out to the Complainant or others, as relevant, for clarification and/or additional information.

If no reasonable cause is found to initiate a formal investigation, the Title IX/EO Coordinator shall inform the Complainant of this decision and discuss other options for addressing the reported concerns.

If there is reasonable cause and the Complainant wishes to proceed, the Title IX/EO Coordinator will initiate an informal resolution or a formal investigation. If the Complainant does not wish to proceed, the Title IX/EO Coordinator will give consideration to the Complainant's preference, but reserves the right, when necessary to protect the PPSC community, to initiate an informal resolution or formal investigation of the complaint. The Title IX/EO Coordinator also reserves the right to initiate an investigation and resolve a complaint without a participating or identifiable Complainant.

Interim Actions

The Title IX/EO Coordinator may implement interim actions, including Supportive Measures, intended to protect the safety and security of the campus community, address the effects of the reported behavior, and prevent further violations, while the complaint is under review or investigation.

These remedies may include, but are not limited to

- placing an employee on administrative leave;
- interim actions outlined in the SP 4-30 Student Disciplinary Procedure;
- campus bans/emergency removals;
- referral to counseling and health services or to the Colorado State Employee Assistance Program (CSEAP);
- education to the community;
- altering work arrangements;
- providing campus escorts;
- implementing contact limitations between the parties (e.g., no contact orders);
- offering adjustments to academic deadlines or course schedules; and/or

- suspending privileges such as attendance at College activities or participation in College-sponsored organizations.

Any campus ban/emergency removal will be implemented only after a determination that the person poses an immediate threat to the physical health or safety of another.

Following the completion of the investigation or resolution process, interim actions may be continued or made permanent as deemed necessary.

Rights of Involved Parties

Throughout the civil rights and sexual misconduct resolution process, Complainants and Respondents shall be entitled to the following:

- To be treated with respect by CCCS employees.
- To take advantage of Supportive Measures and other resources, such as counseling, psychological services, and health services.
- To experience a safe living, educational, and work environment.
- To have an advisor of their choice present at any meeting.
- To have access to a Title IX/EO Coordinator, investigator(s), hearing officers/decision-maker(s) for Title IX cases, and/or other individuals assisting with the resolution process who do not have a conflict of interest or bias for or against either party.
- To receive amnesty for minor student misconduct (such as alcohol or drug violations) that is ancillary to the incident.
- To be free from retaliation.
- To be informed of the outcome/resolution of the complaint, and the sanctions and rationale for the outcome where permissible.
- To have assistance in contacting law enforcement, if desired.
- To request housing, employment, and/or educational modifications, as deemed appropriate and reasonable.
- To request no further contact with the opposite party, as deemed appropriate, allowable, and reasonable.

Informal Resolution

The Title IX/EO Coordinator, in consultation with the parties, may determine that an informal resolution is appropriate to resolve the reported concerns. The primary focus during an informal resolution remains the welfare of the parties and the safety of the PPSC community, but it does not involve a written investigation report or an opportunity to appeal. An informal resolution may include but is not limited to:

- The provision of interim or long-term remedial measures;
- Referral to other resolution processes;
- Training or educational programming for the parties;
- The Title IX/EO Coordinator or a designee serving as a facilitator to discuss the reported concerns with the Complainant and Respondent (either separately or together) and to identify possible resolutions and/or appropriate future conduct; and/or
- Referral to a Disciplinary Authority to further address the reported behavior, as deemed appropriate.
- Notice of the allegations and specific Informal Resolution process will be provided to both parties.
- At any time during the informal resolution process, the Title IX/EO Coordinator may elect to initiate a formal investigation as deemed appropriate to resolve the matter. The parties can elect to cease the informal resolution process at any time

before it concludes and proceed with a formal investigation. The informal resolution process is not available in Sexual Harassment cases involving a student Complainant and an employee Respondent.

Formal Investigation

If a formal investigation is initiated, the Title IX/EO Coordinator shall provide written notice (Notice of Investigation) to the Complainant and Respondent notifying them of the investigation and will assign one or more impartial investigators to conduct an investigation into the complaint. The investigation will include an objective evaluation of all relevant evidence, both inculpatory (incriminating or tending to show responsibility for a violation) and exculpatory (exonerating or tending to negate responsibility for a violation).

Preliminary Investigation Report

Following the fact gathering stage of the formal investigation, the investigator(s) shall issue a Preliminary Investigation Report to the Complainant and Respondent (and their advisors, if applicable) for review. The Preliminary Investigation Report will include relevant facts as gathered by the investigators. At this stage, parties may review upon request all evidence collected as part of the investigation, whether or not it will be relied upon in reaching a determination. The Complainant and the Respondent will have ten (10) calendar days to review and respond to the Preliminary Investigation Report with any changes, clarifications, or questions.

Final Investigation Report

At the conclusion of the fact gathering stage and formal investigation, including any relevant information submitted in response to the Preliminary Investigation Report, the investigator(s) shall issue a Final Investigation Report to the Title IX/EO Coordinator detailing the factual findings and summarizing the relevant evidence.

Upon receipt of the Final Investigation Report, the Title IX/EO Coordinator shall proceed as follows:

For cases involving Sexual Harassment within the United States, the Title IX/EO Coordinator shall initiate a live hearing as described in SP 19-60. If a live hearing cannot be held due to refusal of parties to participate, PPSC reserves the right to address the conduct through the procedures applicable to non-Sexual Harassment/Title IX cases.

Following the hearing, the Hearing Officer will issue a Determination Report to the Title IX/EO Coordinator as to whether or not, based on a preponderance of the evidence, the alleged behavior took place and whether that behavior constitutes a civil rights violation. In reaching this determination, the Hearing Officer must consider all relevant evidence, except for any privileged information (unless waived) or medical records (unless specific, written consent is obtained). If a party or witness does not submit to cross-examination during the live hearing, the Hearing Officer cannot rely on any of their statements in their determination and may not draw any inferences based solely on a party or witness failing to submit to cross-examination. The Determination Report shall include a summary of the allegations; a summary of the procedural steps in the case; findings of fact supporting the determination, conclusions regarding violation of applicable policies with supporting rationale; any disciplinary steps or remedial measures imposed; and the parties' appeal rights.

For other civil rights cases (non-Sexual Harassment or Sexual Harassment outside the United States), the Title IX/EO

Coordinator will obtain a written Determination Report from the investigators as to whether or not, based on a preponderance of the evidence, the alleged behavior took place and whether that behavior constitutes a civil rights violation. The determination shall include a summary of all evidence and information used to reach these conclusions.

Notice of Findings

Once a Determination Report is received (either from the investigator(s) or the Hearing Officer following a live hearing), the Title IX/EO Coordinator shall provide written notice (Notice of Findings) simultaneously to the Complainant and Respondent (and their advisors, if applicable) notifying them of the findings. The Complainant and Respondent shall be advised of their right to appeal, subject to the grounds below, by filing a written appeal with the Title IX/EO Coordinator within ten (10) calendar days of service of the decision.

Appeals for Formal Investigations

In the event of an appeal, the Title IX/EO Coordinator shall perform an initial review to determine if the appeal meets the limited grounds listed below and is timely (filed within ten [10] calendar days, as noted above). If the appeal is found to meet these criteria, the Title IX/EO Coordinator shall forward the appeal to a designated appellate officer, who shall give written notice to the opposing party and provide a suitable time frame for the opposing party to submit a written response to the appeal. The appeal and any responses shall be reviewed by the appellate officer. The party requesting an appeal must show error, as the original finding is presumed to have been decided reasonably and appropriately. The only grounds for appeal are as follows:

A procedural error occurred that significantly impacted the outcome of the decision (e.g., substantiated bias, conflict of interest, or material deviation from established procedures). The written appeal shall specify the procedural error and how it impacted the outcome of the decision.

The findings are not supported by substantial evidence in the investigation report or the report does not articulate a rational connection between the facts found and the decision made. The written appeal shall specify the finding(s) not supported by substantial evidence or for which the report does not articulate a rational connection between the facts found and the decision made; or

To consider new evidence, unavailable during the original investigation, that could substantially impact the original finding(s). Any new evidence and its impact must be included in the written appeal.

If the appellate officer determines a procedural error occurred that significantly impacted the outcome of the decision, the appellate officer shall return the complaint to the Title IX/EO Coordinator with instructions to convene a new investigation or the appellate officer shall otherwise cure the procedural error.

If the appellate officer determines the findings were not supported by substantial evidence in the investigation report, the report does not articulate a rational connection between the facts found and the decision made, or new evidence substantially impacts the original finding(s), the appellate officer shall conduct or request appropriate additional steps (such as requesting additional investigation by the investigators) and/or modify the findings accordingly.

Written notice of the outcome of the appeal shall be provided simultaneously to the parties.

Sanctions

Once the appeal process has been exhausted, if the Respondent is found not in violation of policies or procedures outlined herein, the complaint shall be closed with no further disciplinary action. If additional concerns, outside the scope of this procedure, are identified during the course of the investigation, the findings may be shared with appropriate administrative personnel to further address, as deemed appropriate.

If the Respondent is found in violation of policies or procedures outlined herein, the findings shall be provided to the Disciplinary Authority to proceed in accordance with applicable policies:

For classified employees, disciplinary action will be taken pursuant to the applicable State Personnel Rules and Regulations: www.colorado.gov/spb

For students, disciplinary action will be taken pursuant to BP and SP 4-30, Student Discipline: www.cccs.edu/wp-content/uploads/2013/09/SP4-30.pdf

Instructors and Administrative, Professional-Technical (APT) employees are at-will under BP 3-10 and may not be subject to additional procedures when issuing sanctions: www.cccs.edu/policies-and-procedures/board-policies/bp-3-10-administration-of-personnel/.

Disciplinary Authorities may consider a number of factors when determining a sanction. These factors may include, but are not limited to, the following:

- The nature, severity of, and circumstances surrounding the violation;
- An individual's disciplinary history;
- Previous complaints or allegations involving similar conduct; and/or
- Any other information deemed relevant by the Disciplinary Authority.

The following sanctions may be imposed:

- For students: warning, probation, fines, restitution, denial of privileges, assignment to perform services for the benefit of the PPSC community, re-assignment to another class section (including the option for an on-line section), suspension, expulsion, a "Cease Communications" directive, or a "No Trespass" directive.
- For PPSC employees: warning, corrective action, probation, restitution, denial of privileges, suspension, demotion, reduction of pay, termination of employment, a "Cease Communications" directive, or a "No Trespass" directive.
- For authorized volunteers, guests, or visitors: warning, probation, denial of privileges, removal from PPSC property, a "Cease Communications" directive, or a "No Trespass" directive.

In addition to sanctions, other action may be taken as deemed appropriate to bring an end to the violation, to prevent future reoccurrence, and to remedy the effects of the violation.

Student Privacy

The outcome of a PPSC investigation is an educational record of a student Respondent and is subject to privacy protections under the federal Family Educational Rights and Privacy Act (FERPA),

however PPSC observes the legal requirements to disclose the records detailed in SP 19-60.

<u>Outside Reporting</u>

In addition to reporting to PPSC, any person has the right to file a police report. Complainants requiring assistance with this should contact the Title IX/EO Coordinator.

Student Complainants also have the right to make inquiries and/or file a complaint with:

Office for Civil Rights (OCR)

U.S. Department of Education
Cesar E. Chavez Memorial Building
1244 Speer Boulevard, Suite 310
Denver, CO 80204-3582
Telephone: (303) 844-5695
Facsimile: (303) 844-4303
Email: OCR.Denver@ed.gov
Web: http://www.ed.gov/ocr

Employee Complainants also have the right to make inquiries and/or file a complaint with:

Colorado Department of Regulatory Agencies (DORA)

Colorado Civil Rights Division (CCRD)
1560 Broadway
Suite 825
Denver, CO 80202
Telephone: (303) 894-2997
Facsimile: (303) 894-7570
Email: dora_CCRD@state.co.us
Web: www.colorado.gov/pacific/dora/civil-rights

Or

United States Equal Employment Opportunity Commission (EEOC)
303 E. 17th Avenue
Suite 410
Denver, CO 80203
Telephone: (800) 669-4000
Facsimile: (303) 866-1085
Web: www.eeoc.gov/field-office/denver/location

Academic Honesty

Students are expected to conduct themselves according to the highest standards of honesty in the classroom, shop, studios, laboratory, or any other instructional space. Failure to do so is grounds for disciplinary action, including suspension or expulsion from Pikes Peak State College.

Academic honesty is a fundamental value of higher education. It means that you respect the right of other individuals to express their views and do not plagiarize, cheat, falsify, or illegally access college records or academic work. You are expected to read, understand, and follow the Student Code of Conduct.

Academic dishonesty is defined as the unauthorized use of assistance with the intent to deceive a faculty member or another person assigned to evaluate work submitted to meet course and program requirements. Examples of academic dishonesty include but are not limited to the following:

- he submission, in whole or part, of material prepared by another person and represented as one's own
- plagiarism, which is defined as the act of taking the writings, ideas, etc., of another person and passing them off as one's own
- the use of electronic data sources (including the internet, phone texting, computer instant messaging, smart devices such as the smartwatch or any form of artificial intelligence) for any written or spoken graded content is strictly prohibited unless explicitly permitted in writing by the instructor. Students must demonstrate knowledge, understanding, independence, and integrity in their academic work
- the unauthorized use of notes, books, or other materials; the deliberate, unacknowledged reference to the work of another student; or the soliciting of assistance from another person during an examination, unless directed by the instructor
- illegitimate possession and distribution of test materials or answer keys
- unauthorized alteration, forgery, or falsification of official academic records

Classroom Attendance Procedure

Individuals not enrolled in a class are not permitted to sit in the classroom while the class is in session. Faculty members are encouraged to take attendance and anyone not on the class list will be asked to leave the classroom. The only exception to this procedure is for specially trained interpreters necessary for disabled students.

Conduct in College Buildings

By Colorado Executive Order, smoking tobacco products is not permitted in any College facility. Smoking tobacco products includes the use of cigars, cigarettes, and electronic smoking devises (i.e., e-cigarettes).

Eating or drinking is not permitted in classrooms, laboratories, shops, the theatre, and the gymnasium, except when permission is granted by the person immediately responsible for supervision of the affected area.

Animals, except when needed for instruction or by disabled persons, are not allowed in any College building. Animals on the College grounds must be on a leash.

Leaving children unattended or unsupervised in campus buildings or on campus grounds can constitute child abuse or child neglect (as outlined in the Colorado Child Protection Act of 1975). Children are not permitted in classrooms during class meeting times.

The College may require students to pay replacement or repair costs for College equipment lost, broken, or damaged through carelessness, negligence, or misconduct.

Restricted Attendance

Faculty may suspend students from one class period if their conduct is obstructive, disruptive, or unacceptable in an instructional setting. Students may return to class after the faculty member has identified the conditions to allow continued attendance. If students return and these conditions are violated, the appropriate dean will review the circumstances and provide information to the Dean of Students. This information shall state the appropriate administrative action, which may include continued attendance or permanent dismissal from the class as outlined in the Student Disciplinary Procedure.

Alcohol and Drug Policies

General

In compliance with the Drug-Free Schools and Communities Act Amendment of 1989 (Public Law 101-226), students, staff, or faculty shall not engage in the unauthorized or unlawful manufacture, distribution, dispensation, possession, use/abuse of alcohol and/or illicit drugs of any kind or any amount on college property or as part of any college activity. This prohibition applies even if the Colorado Department of Public Health and Environment (CDPHE) has issued a Medical Marijuana Registry identification card to an individual, permitting that individual to possess a limited amount of marijuana for medicinal purposes. Those with medical marijuana cards are not permitted to use medical marijuana on campus. These prohibitions cover any individual's actions which are part of any college activities including those occurring while on college property or in the conduct of college business away from the campus.

Any student, staff, or faculty member who is convicted of the unlawful manufacture, distribution, dispensation, possession, use, or abuse of illicit drugs or alcohol is subject to criminal penalties under local, state, or federal law. These penalties range in severity from a fine of $100 up to $8,000,000 and/or life imprisonment. The exact penalty assessed depends upon the nature and the severity of the individual offense.

The college will impose penalties against students who violate the Drug-Free Schools and Communities Act Amendments of 1989 (Public Law 101-226). Violators will be subject to disciplinary action under student disciplinary policies. The sanctions include but are not limited to probation, suspension, or expulsion from the college, termination of employment, and referral to authorities for prosecution, as appropriate.

Compliance with drug and alcohol policies is a condition of employment for all PPSC employees. Employees may be subject to corrective and/or disciplinary action as per State Personnel Rules and Regulations, up to and including termination. The Executive Director of Human Resource Services sends a campus-wide E-memo each year to inform staff of the college's policy on alcohol and other drugs.

For further information, contact the Human Resource Services Office or the Campus Life Office at the Centennial Campus.

Laws and Statutes

Federal and state laws govern the use and possession of controlled substances.

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Excerpts from Colorado Revised Statue (CRS) 18-18-405:

Except as specifically authorized under Colorado law, it is unlawful for any person knowingly to manufacture, dispense, sell, or distribute, or to possess with intent to manufacture, dispense, sell, or distribute, a controlled substance; or induce, attempt to induce, or conspire with one or more other persons, to manufacture, dispense, sell, distribute, or possess with intent to manufacture, dispense, sell, or distribute, a controlled substance; or possess one or more chemicals or supplies or equipment with intent to manufacture a controlled substance.

Except as is otherwise provided for offenses concerning marijuana and marijuana concentrate in and for offenses involving minors,

any person who violates the foregoing prohibition commits a Felony Offense.

All drug possession charges and penalties are classified by Schedule, except for Marijuana possession.

Substance/Drug Charge Potential Sentence for Possession:

- Schedule I or II, 1st offense Class 3 Felony 4-12 years in prison and fines of $3,000- $750,000
- Schedule III, 1st offense Class 4 felony 2-6 years in prison and fines of $2,000- $500,000
- Schedule IV, 1st offense Class 5 felony 1-3 years in prison and fines of $1,000- $100,000
- Schedule V, 1st offense Class 1 misdemeanor 6-18 months in jail and fines of $500-$5,000

Alcohol

Pikes Peak State College does not allow the sale of alcohol on any of its campuses. However, the Substance Abuse Procedure for Employees permits the use of alcohol on campus when approved by the President prior to a function. In that event, if alcohol is served, non-alcoholic beverages must also be made available.

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Additionally, all students and faculty traveling as a part of a college course or student group sign waivers that state, in part:

> Student: "I further understand that I am expected to adhere to the Standards of Conduct and to all policies and procedures of Pikes Peak State College. Actions such as, but not limited to, sexual harassment, sexual misconduct, dishonesty, forgery, disorderly conduct, indecent or obscene conduct, gambling, infringement upon the rights of others, possession, distribution or consumption of alcohol or illegal drugs and unauthorized use of prescription drugs are prohibited by the Standards of Conduct."

> Faculty/Advisor: "I also recognize that this is a college sponsored program/activity and I agree to abide by all college policies, as well as State and Federal laws on the course/program/activity. This includes omitting the use of alcohol and illicit drugs, and not bringing or using any weapons."

Copies of the complete Student/Participant Waiver Form and the Faculty/Advisor Waiver of Rights, Assumption of Risks, and Release of Liability Agreement are included in Appendix C.

Other Drugs

The sale, manufacture, distribution, use, and/or possession of illegal drugs are prohibited.

Although possession and use of marijuana consistent with the requirements of the Colorado Constitution is no longer a crime in the State of Colorado, the possession and use of marijuana remains illegal under federal law. Consistent with federal law, including the Controlled Substances Act and the Drug Free Schools and Communities Act, the use and/or possession of marijuana continues to be prohibited while a student is on college owned or college-controlled property, and/or any function authorized or supervised by the college and/or in state owned or leased vehicles.

This prohibition applies even if the Colorado Department of Public Health and Environment (CDPHE) has issued a Medical Marijuana Registry identification card to an individual, permitting that

individual to possess a limited amount of marijuana for medicinal purposes. Those with medical marijuana cards are not permitted to use medical marijuana on campus.

Smoking on College Grounds

Pikes Peak State College campuses must be open and accessible to the general public in order to fulfill the role and mission of the College. To promote a healthy environment for the College community, and to comply with Colorado Governor's Executive Order D0036 90, smoking is prohibited in all PPSC buildings and facilities.

"Smoking," as used in this policy, includes, but is not limited to:

- Smoking tobacco products such as cigars, cigarettes, and pipes;
- Cloves, bidis, kreteks, and other herbal cigarettes;
- Electronic smoking devices (e-cigarettes or vapor cigarettes);
- Marijuana, marijuana products, and hashish; and
- Illegal drugs (e.g., cocaine, heroin, opium, methamphetamine).

Smoking of tobacco products and the use of electronic smoking devices is allowed only in designated smoking areas at the Centennial, Rampart Range, and the Downtown campuses.

High school students (Career Start and CE), regardless of age, who attend the College are prohibited from smoking while on PPSC property.

Military sites will comply with all rules and regulations for those installations.

Smoking marijuana products is prohibited on all PPSC campuses. Although possession and use of marijuana consistent with the requirements of the Colorado Constitution is no longer a crime in the State of Colorado, the possession and use of marijuana remains illegal under federal law. Consistent with federal law, including the Controlled Substances Act and the Drug Free Schools and Communities Act, the use and/or possession of marijuana continues to be prohibited on college-owned or college-controlled property, and/or any function authorized or supervised by the college and/or in state owned or leased vehicles.

Designated Smoking Areas

Smoking is permitted in designated smoking areas only at Centennial, Rampart Range, and the Downtown Campuses.

Smoking is not permitted in any campus courtyard, at the Centennial Campus bus stop, or while walking to and from parking lots, bus stops, and buildings at all campuses.

Smoking materials must be discarded in designated receptacles.

Violations of College smoking policies may result in a citation and/or fine, as well as student or employee disciplinary action.

Centennial Campus Designated Smoking Areas
- On the service drive, southwest corner
- On the service drive, southeast corner
- At the northwest entrance off of A lot

Rampart Campus Designated Smoking Area
- Northeast corner at the old bus stop

Downtown Campus Designated Smoking Area
- West side near the ramp exit/entrance

Sexual Harassment

Pikes Peak State College is firmly committed to maintaining a work and learning environment where students, faculty, and staff are treated with dignity and respect. Sexual harassment and acts of discrimination are illegal, often demeaning for the individual student or employee, and can disrupt the College's positive learning and working environment. As such, all members of the College community have a responsibility to be aware of what behaviors constitute sexual harassment, to be responsible for their own actions, and to help create an environment free of sexual harassment.

Pikes Peak State College defines sexual harassment as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when one or more of the following criteria are met:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or of academic status in a course, program, or activity.
- Submission to or rejection of such conduct by an individual is used as a basis for employment or academic educational decisions affecting such individual.
- Such conduct is sufficiently severe, persistent, or pervasive so as to have the purpose or effect of unreasonably interfering with an individual's work and/or academic educational performance or creating an intimidating, hostile, or offensive work and/or learning environment.

Furthermore, retaliation against any person for filing a complaint, participating in, or cooperating in an investigation is prohibited.

If you believe that you have been sexually harassed or that you have been retaliated against by anyone in your work and/or academic activities at Pikes Peak State College, you should report this conduct immediately so that an inquiry into your complaint may commence without delay. You may report this conduct to an officer of the College, instructional dean, division/department director, or a Human Resource Services representative. Substantiated complaints may result in disciplinary action up to and including expulsion from the College.

The College has designated the Executive Director of Human Resource Services as its Equal Opportunity Education/Employment Compliance Officer. Inquiries and/or complaints may be referred to the Human Resource Services office by e-mail, hrs@pikespeak.edu, or by calling 719-502-2600. The EEO Compliance Officer or designate will investigate all credible allegations of sexual harassment in a timely manner and in accordance with its official complaint investigation procedure.

Complaints may also be referred to the Office for Civil Rights, U.S. Department of Education, 1244 Speer Boulevard, Cesar E. Chavez Memorial Bldg., Suite 310, Denver, Colorado 80204, 303-844-5695.

AIDS Policy

Current knowledge indicates that individuals with Acquired Immunodeficiency Syndrome (AIDS), AIDS Related Complex (ARC), or a positive test for antibody to the Human T-Lymphotropic Virus Type III (HTLV-III/HIV) do not pose a health risk to others in a non-laboratory academic setting. According to current medical data, the virus is not transmitted by casual contact. Based on this knowledge, individuals sharing common work or study areas, libraries, classrooms, recreational facilities, cafeterias, and theaters do not present a problem or public health threat to the

College community. Laboratories and/or programs dealing with body fluids will teach and practice universal precautionary procedures.

Students or employees of Pikes Peak State College who are or may become infected with the AIDS virus will not be excluded from enrollment or employment or restricted in their access to College services or facilities unless medically-based judgments indicate restriction is necessary for the welfare of the individual or other members of the College community. There will be no mandatory screening of prospective or current students or employees for the AIDS virus; harassment or discrimination against people infected with the AIDS virus will not be tolerated. Further, the strictest principles of confidentiality will be maintained in management of personal medical information, as provided by law.

Currently, there is no cure for AIDS. Prevention of the disease through education is crucial. The College is committed to ongoing awareness efforts through its curriculum, student and staff activities, and community events.

Firearms on Campus

State Board Policy states that no person may have on his or her person any unauthorized firearm, ammunition, explosive device, or illegal weapon on campus or any facility used by a college. Persons authorized to carry firearms and other equipment defined in the policy are:

- those persons conducting and participating in an approved program of instruction in the college's curriculum which requires access to such equipment as an integral part of the instructional program;
- certified peace officers;
- those persons who have been issued a valid permit to carry a concealed handgun in accordance with Colorado's Concealed Carry Act, C.R.S. § 18-12-201, et seq. and who are acting in compliance with the requirements of that Act; and those persons granted permission at the discretion of the college president for specific purposes from time to time.

Concealed Handgun Permit holders exercising their rights pursuant to Item #3 above are responsible for preventing the casual or inadvertent display of their handgun.

It shall not be an offense if the weapon remains inside a locked motor vehicle upon the real estate owned by the State Board for Community Colleges and Occupational Education.

In accordance with Colorado Statute CRS 18-12-214(3), under no circumstances may a person other than a certified peace officer carry a firearm or other equipment defined in Board Policy onto the real property, or into any improvements erected thereon, of a public elementary, middle, junior high, or high school. This provision applies to The Classical Academy (TCA) facility, which is located on PPSC's Rampart Range Campus and owned by School District 20.

In accordance with Colorado Statute CRS 18-12-214(3)(a), a concealed weapon permittee may have a handgun on the real property of the public school so long as the handgun remains in his or her vehicle and, if the permittee is not in the vehicle, the handgun is in a compartment within the vehicle and the vehicle is locked.

Violations of the college firearms policy may result in criminal prosecution. Questions should be directed to the Department of Campus Police.

Parking and Traffic Regulations

The Pikes Peak State College Centennial Campus and Rampart Range Campus will provide open parking in all general lots, supported by a student fee paid at registration.

Centennial Campus: Parking is available in lots C, D, and E. Motorcycles may be parked in the designated marked areas in lots C, D, and E.

Free Visitor and Future Student Parking is available in lots C, D, and E lots.

Rampart Range Campus: Parking is available in lots 1, 2, 3, 4, and 5. Motorcycles may be parked in the designated area in lot 2.

Downtown Campus: Students may park in the Antlers garage for free, but a parking pass/hang tag is *required.* Students are not permitted to park in the parking lots on or near the campus. Parking passes may be obtained for free at the Downtown Campus Student Life in Room S234. Student, staff, or faculty identification is required. Students must also show a copy of their class schedule (digitally or printed).

Speed Limits: Speed limits on campus are 15-25 m.p.h. on Perimeter Road and Rampart Road unless otherwise posted, and 10 m.p.h. in the parking lots. Pedestrians always have the right of way. For the safety of all, DO NOT park in service drives, crosswalks, or roadways. Violators may be ticketed.

Accessible Parking: Only vehicles identified as belonging to persons with disabilities and displaying state issued handicapped placards/license plates may park in the ADA designated parking areas.

Special Wheelchair Only: These spaces are reserved for use by those persons who use wheelchairs. Parking spaces are marked for "Wheelchair Only."

Centennial Campus: The accessible parking areas are in the North Lot with additional spaces available behind the Child Development Center.

Rampart Range Campus: The accessible parking areas are in lots 1, 2, and 3 with additional spaces available by the T Building.

Downtown Campus: The accessible parking area is in the faculty lot between the PDO-N and PDO-S buildings. Additional metered spaces are available in front of the PDO-S building.

Center for Healthcare Education and Simulation (CHES): Accessible parking spaces are available on either side of the main entrance.

Mopeds and Bicycles: Parking for these vehicles is available at the Centennial Campus outside the main entrance to A Building by A-262, and at Rampart Range Campus outside the main entrance. Bicycles or mopeds locked or parked in hazardous locations will have the lock or chain cut, and the vehicle will be impounded by the Campus Police Department for safekeeping.

Overnight Parking: Overnight parking is prohibited at any Pikes Peak State College campus without prior written authorization from the Campus Police Department. Vehicles left overnight are subject to the Colorado Revised Statute abandoned vehicle law, C.R.S. 42-4-1803. Vehicles abandoned for 48 hours or more are subject to towing at the owner's expense. Vehicles left overnight may also be towed at the owner's expense prior to the 48-hour period if they pose a hazard or interfere with the operations of the college or any event scheduled on college property.

Accidents: Colorado law requires all accidents be reported to the proper authorities immediately. Pikes Peak State College campuses are State property, not private property. All accidents occurring on PPSC Campuses are subject to state law and must be reported to the Campus Police Department at 719-502-2911. Failure to report a traffic accident occurring on campus can result in criminal charges as per C.R.S. 42-4-1601 through 42-4-1606.

Traffic and Parking Violations: The Campus Police Department will issue citations which may include fines and/or vehicle impoundment for both parking and moving violations occurring on College property. Summons and Penalty Assessments must be answered in El Paso County Court. College citations for parking violations will result in a fine which must be paid to the College cashier in A-110 at Centennial Campus or S-102 at Rampart Range Campus, 8:00 a.m. to 5:00 p.m., Monday–Friday. The registered owner of the vehicle or identified user of the vehicle shall be held liable for all violations.

Campus Citation Appeal: If a person wishes to appeal a campus citation, he or she must submit a statement in writing before the tenth working day from the date of the citation. An appeal form is available in room A-100 at Centennial Campus, in room N-106 at Rampart Range Campus, and online at: www.pikespeak.edu/administration-operations/campus-police/forms.php.

A Police Sergeant will review the first appeal and have it mailed back to the appropriate person. If the appeal has been denied, a second appeal may be filed with the Chief of Police or his designee. The decision of the Chief of Police or his designee is final.

Enforcement Authority: By Colorado Revised Statutes 23-5-107. Authority of Governing Boards, Parking.

Safety Escort Service: Upon request, PPSC Campus Police officers will provide safety escorts between campus buildings and parking lots, including between the Downtown Campus and the Antlers parking garage, during the open building hours. Anyone who wishes an escort may call the Campus Police office at 719-502-2900/2911 or stop by Centennial Campus room A-100, Downtown Campus S-101, or Rampart Range Campus N-106.

Behavioral Intervention Team (BIT)

PPSC's Behavioral Intervention Team (BIT) is a team of individuals across campus who are trained and focused on supporting a safe learning and working environment for the college community.

PPSC's BIT works to identify and intervene when student behaviors signal that deeper concerns may be present. Our goal is to become involved early in student issues – before incidents become crises. We depend upon *you* to help us promote a safe and productive PPSC community. PPSC's BIT is committed to addressing your concerns quickly and effectively.

You should report if someone you know is experiencing

- Personal problems
- Family problems
- Changes in behavior
- Changes in appearance
- Health problems
- Crying
- Talking to self
- Poor attendance

- Changes in social interactions
- Appearance of substance or alcohol abuse
- Expresses dark thoughts
- Changes in communication
- Being bullied
- Writing or making disturbing comments

These and other behaviors may be a signal that a someone is in need of support. PPSC is its strongest when each of us takes the time to actively care about each other. If you think a student may need support, submit a report! You may report anonymously, and please know that PPSC 's BIT takes all reports seriously. The earlier we know something is going on, the sooner we can help.

What Happens When I a Report?

- Review your report and contact you (if you've provided contact information) if we need more information
- Assess the case using an objective Risk Assessment Tool
- Intervene using the resources best equipped to support the student
- Within privacy-law boundaries, we may provide you an update.

How Do I Make a Report?

You may make a report at www.pikespeak.edu/concern

If someone is an immediate threat to themselves or someone else, **CALL 9-1-1 IMMEDIATELY.**

The emergency number 911 should only be used in emergency situations when a police officer, fire fighter, or paramedic is needed right away. If you are ever in doubt, call 911. 911 should not be used for non-emergencies.

Campus Police Department

Emergencies and Crime Reporting

For emergencies, dial 911 from any campus or mobile phone. When calling 911 from a campus phone, it is not necessary to dial '9' first – simply dial 911. 911 should not be used for non-emergencies.

All emergencies and suspected criminal actions must be promptly reported to the Campus Police Department. Campus Police officials will take whatever action is deemed necessary to protect life and property and to enforce all Federal and State laws and regulations.

The Colorado State Legislature has granted authority to commissioned officers of the Campus Police Department to enforce all laws and regulations. Officers work in cooperation with State and local law enforcement agencies.

Sex Offender Information

Information concerning persons who are required by Colorado law to register as sex offenders, including registered sex offenders who are enrolled, employed, or volunteering at Pikes Peak State College, may be obtained from:

Colorado Springs Police Department
705 South Nevada Avenue
Colorado Springs 80903
Phone: (719) 444-7000

El Paso County Sheriff's Office

210 South Tejon Avenue
Colorado Springs, Colorado 80903
Phone: (719) 520-7100

Colorado Bureau of Investigation, Convicted Sex Offender Site (apps.colorado.gov/apps/dps/sor/search-agreement.jsf)

Emergency Notification System

PPSC uses an Emergency Notification System (ENS) to send emergency alerts and messages to the College community. Emergency notifications are sent via text, email, and voice messaging. Registered students and employees are automatically subscribed into this system using the contact information on file with the College. Anyone from the community can also sign up to receive PPSC emergency notifications.

For more information on the College's ENS, or to sign up to receive emergency notifications, go to www.pikespeak.edu/administration-operations/emergency-management/index.php.

The ENS relies on contact information being kept current. PPSC recommends that students and employees review their contact information at least once per semester.

- Log in on the myPPSC portal.
- Go to the Dashboard.
  - Students: Select "Update Personal Information."
  - Employees: Select "Personal Information."
- Select "View or Update Addresses and Phones" and/or "Update E-Mail Addresses."
- Make desired changes and SAVE

For more information about PPSC's Emergency Notification System, go to www.pikespeak.edu/administration-operations/emergency-management/index.php.

Emergency Response Guide: Each classroom, office, or work area is equipped with a "flip chart" style Emergency Response Guide (ERG), that lists the most common types of emergencies alphabetically and provides clear, step-by-step guidance on specific actions to take during any particular emergency.

Annual Security Report

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (aka the Clery Act) requires colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their campuses. The U.S. Department of Education monitors compliance.

As part of Clery Act Compliance, PPSC issues an Annual Security Report (ASR). To access the PPSC ASR, go to: www.pikespeak.edu/administration-operations/campus-police/security-reports.php.

Scroll down to "PPSC Annual Security Reports" and select a year to view.

SERVICES FOR STUDENTS

In This Section

Accessibility Services

Centennial • A-130 • 719-502-3333
Downtown • DO-S126 • 719-502-3333
Rampart Range • S-202 • 719-502-3333

Accessibility Services strives to create an accessible environment by providing reasonable and appropriate services and accommodations for students with disabilities. The College is committed to providing quality educational support for the diverse needs of its students.

Support services and accommodations may include:

- Computer Assistive Technology
- alternative testing arrangements
- advocacy training
- instruction in learning strategies
- readers/scribes for accommodative testing only
- text in alternate formats
- interpreting services (Sign Language)

It is the responsibility of students requesting an accommodation due to a qualifying disability to self-identify by registering with Accessibility Services, to apply for supportive services, and to furnish documentation, if requested, about the nature and extent of their disability. This information is kept confidential and will be used to plan for appropriate services and accommodations. Students must contact Accessibility Services prior to the beginning of each semester to discuss arrangements for needed timely accommodations. The College is not obligated to provide or continue to provide accommodations that are not approved by Accessibility Services.

Informing other staff or faculty does not constitute registering with Accessibility Services. Accommodation requests are evaluated individually to determine the provision of reasonable accommodations based on an interactive process, a review and analysis of documentation and circumstances.

Determination of accommodations can be an involved and lengthy interactive process; therefore, students are encouraged to connect with Accessibility Services and provide any disability related documentation as soon as possible. To allow time to provide supported accommodations in a timely manner, students should contact Accessibility Services at least one month before the beginning of the semester. Students who don't meet these timelines are still encouraged to call Accessibility Services for information or an appointment.

Accessibility Services does not support accommodations on a provisional basis. Students who are accommodated on a temporary medical or for a temporary physical injury will be required to provide documentation in order to continue receiving accommodations beyond the one semester. Updated documentation may be requested depending on the disabling condition, current status of the student, and the student's request for accommodations.

Accommodations will not be approved or granted if the student does not meet the definition of a qualifying disability as defined in the Americans with Disabilities Act (ADA) and determined through the Accessibility Services interactive process review.

Certain certification testing or licensure boards have specific processes for students who need to use testing accommodation. Please check with your program area regarding the process to request for accommodations for any professional certification of licensure testing that is not administered by the College. Documentation accepted by and accommodations provided by PPSC Accessibility Services may or may not be accepted by testing agencies or other higher education institutions. Accommodations provided in the academic environment may or may not be provided at internships, clinical sites, or in the workplace.

It is the student's responsibility to self-advocate for approved accommodations. You are welcome to contact Accessibility Services for any support or assistance with self-advocating for your academic needs.

Assistive Technology Lab. The Assistive Technology Lab is located at the Centennial Campus in A130. The lab utilizes computer assistive technology such as screen readers, voice recognition, alternative input/output devices, and screen magnification. Training opportunities combining word processing and assistive technology are offered.

Interpreting Services. Interpreting services are available for Deaf and hard of hearing students. Call 502-3026 or VP 387-9495 for more information.

All students, with or without a disability, must adhere to the PPSC Code.

Advising and Testing

Centennial • A-121 • 719-502-3232
Rampart Range • S-101 • 719-502-3232

Advising & Testing supports student learning by aiding students in deciding what degree or certificate they can pursue to meet their career goals; how to choose courses that provide the shortest path to their chosen goal; and if they are best prepared to start with college level course work. Advising & Testing provides students with information on transferring to 4-year schools; career readiness; faculty advising; and registering for classes. Visit our

webpage at: www.pikespeak.edu/advising, www.pikespeak.edu/testing, or one of our Advising & Testing offices which are available at all PPSC campuses.

Academic Advising

- Advising to help with decision-making, goal setting, and choosing a college course of study
- Explanation of basic skills (placement test) results, and assistance in selecting the correct classes based upon a student's degree and placement results
- Information on course sequence and prerequisites
- Help in adding or dropping classes
- Assignment of a faculty advisor
- Assistance with changing a course of study or faculty advisor, www.pikespeak.edu/records/change-of-major

Testing

Centennial • A-121 • 719-502-3370
Rampart Range • S-101 • 719-502-3380

In addition to placement testing, the following testing services are offered:

- CLEP and DSST testing for college credit
- GED testing for the Colorado High School Equivalency Diploma
- Online course testing and classroom make-up testing
- Various certification exams

All new students entering English as a Second Language (ESL) must take a placement test. This test will place new students into one of three levels: basic, intermediate, or advanced. The test is available on computer at all three campuses. ESL students should call 719-502-3535 for further information.

Accommodations are available for students with documented disabilities. Contact Accessibility Services to make arrangements for accommodated testing. 719-502-3333.

Please call any of the Testing Centers for additional information.

Career Services

Centennial • A-316 • 719-502-2360

The Career Services department offers a variety of services to support student success at PPSC. Whether you're a new or currently enrolled student, you can meet with one of our Career Advisors to receive detailed information on PPSC services and referrals to campus and community resources.

Explore Careers
- Unsure where to start? We have many resources to help discover the educational path for you. Meet with a Career Advisor or start with some resources to support you in your exploration.

Career Services
- Let our Career Advisors help you with formatting your resume and working on your interview skills to help land your dream job.

Job Search
- Looking for a job? Our Handshake technology can help connect you to a job on campus or out in the community

Set up an appointment visiting us in room A-316, calling us at (719) 502-2360, emailing career@pikespeak.edu, or through Navigate.

Child Development Centers

Centennial • 719-502-2323

The Child Development Center located at the Centennial Campus offer comprehensive educational childcare services for children in partnership with the Community Partnership for Child Development (Head Start). CPCD is an award-winning early childhood education agency with over 65 classrooms in Colorado Springs and the surrounding area. Using a robust curriculum and trained staff your child will thrive and grow in a quality learning environment. Find out more about us at www.cpcdheadstart.org.

Computer Labs

Centennial • 719-502-2442
Downtown • 719-502-2443
Rampart Range • 719-502-2408

ITSS computer labs at the Centennial, the Downtown, and Rampart Range campuses are available to students, faculty, and staff. ITSS computer labs are also open evenings and weekends to provide students with extended access to technology resources. Hours of operation vary by semester and by campus, so please call 719-502-2442 for current lab hours or visit www.pikespeak.edu/computer-services/.

Lab staff is available to assist students, faculty, and staff with questions and/or problems in the computer labs. Students seeking tutoring services should contact the Learning Commons - Tutoring at 719-502-3444.

Centennial Campus Computer Lab. Located in room A-300, the computer lab at Centennial campus has 130 computers including both PCs and Macs. The Centennial Campus computer lab includes a multimedia area available for students emphasizing Multimedia Graphic Design (MGD) and Computer Aided Drafting and Design - Mechanical programs. This area of the lab is available for all students, faculty, and staff with preference given to those students currently enrolled in MGD and CAD classes.

Downtown Campus Computer Lab. Located in room DO-S207, the lab is equipped with 20 computers including both PCs and Macs. Access to the Internet, as well as the instructional network, is provided to assist students with their coursework.

Rampart Range Campus Computer Lab. Located in room E-203, this computer lab is equipped with 33 computers including both PCs and Macs. Each computer has access to the Internet, as well as the instructional network, is provided to assist students with the completion of coursework.

Copy Center

Centennial • C-101 • 719-502-2111

Services are available to students, faculty, and staff for both personal and work-related jobs. The Copy Center is open Monday through Friday, 8:00 a.m. to 5:00 p.m. and offers black and white copies and transparencies; color printing; color banners and posters; design, layout, and production services; folding, binding, padding, and hole punching.

Department of Campus Police

Centennial • A-100 • 719-502-2911
Downtown • DO-S101 • 719-502-2911
Rampart Range • N-106 • 719-502-2911

The Department of Campus Police is located at all campuses. The officers at all campuses can be reached via telephone at 719-502-2911. Emergency calls should be directed to 719-502-2911. The Department of Campus Police is staffed by 17 state certified peace officers. All PPSC Campus Police officers are commissioned State peace/police officers. They have full police authority and function the same as any other law enforcement agency in the State of Colorado and on College property.

Information Technology Support Services

Centennial Main Office • B-201 • 719-502-4800
Centennial Computer Lab • A-300 • 719-502-2442
Downtown Computer Lab • DO-S207 • 719-502-2443
Rampart Range Computer Lab • E-203 • 719-502-2408

The Information Technology Support Services (ITSS) division provides a wide variety of technology services to the College, as well as limited service to the Colorado Community College System and other State entities. Our services span desktop-to-server-to-mainframe computing, networks, telecommunications, Internet connectivity, administrative and academic systems, security, instructional technology, computer labs, plus many support services.

ITSS works with College divisions and departments to develop and implement new systems and technologies. At the same time, we provide quality service and support to all members of the College community.

ITSS provides current students with an account on the instructional network and an e-mail address accessible via the Internet.

Classroom and lab computers are networked with access to the Internet and the instructional network. Each full-service campus has its own local area network (LAN). All campus LANs are linked via redundant fiber optic connections to provide students, faculty, and staff with the ability to seamlessly access data from any campus. Regular backups are performed to ensure that coursework and other data are recoverable in the event of a disaster.

Wireless Access. Wireless access to the Internet is available across all areas of the Centennial, Downtown, and Rampart Range Campuses.

IT Service Desk. The IT Service Desk is located in room B-201 at Centennial Campus and is open Monday-Friday from 8:00am to 5:00pm and Fridays from 9:00am to 5:00pm. The help desk can be reached 24/7 via telephone at 1-888-800-9198 or online at helppikespeak.edu/.

Learning Commons - Tutoring

Centennial • A200 • 719-502-3400
Downtown • DO-N204 • 719-502-2318
Rampart Range • N200 • 719-502-3190

www.pikespeak.edu/learning-commons/tutoring

The mission of our Learning Commons is to promote student persistence by reinforcing the importance of supplemental support, collaborative inquiry, and independent learning. Students, faculty, and staff are encouraged to take advantage of the free academic resources offered in Learning Commons. Tutoring resources include the following:

- Drop-in and appointment-based tutoring for many subjects, including math, writing, and sciences
- EdReady, a free personalized learning resource to help students strengthen math and writing skills
- College Success Workshops
- Fellows Tutoring, embedded tutoring support in certain STEM and writing intensive courses
- Live and asynchronous online writing support

Students seeking tutoring and other academic support services should:

- Follow the course sequence outlined by their academic advisor (tutoring does not take the place of prerequisite courses)
- Attend classes, participate, and engage with the academic material
- Come to sessions prepared with all relevant course material including notes, textbooks, and assignment descriptions

Schedules for all services are available on the Learning Commons website. In person tutoring sessions are drop-in and appointment-based, while online serves are drop-in or asynchronous. More information about tutoring services at the Learning Commons can be found on our website.

Library

Centennial Learning Commons • A-200 • 719-502-2400
Rampart Range • N-201 • 719-502-2440

www.pikespeak.edu/library

The Library provides a supportive learning and study environment at the Centennial Learning Commons and the Rampart Range Campus Library. Services provided at both locations include research assistance and workshops, study rooms, computer access and interlibrary loan. Research assistance is available at the Downtown Campus two days/week. Resource materials include electronic databases, 150,000+ eBooks, online subject-specific research guides, print books and magazines, DVD's, audio books. Electronic resources are available off-campus.

Reference and Research Service

Our professional reference librarians serve as information guides to help students, faculty, staff, and community users find their way to the most relevant sources, whether using databases, the web, or print resources. The reference staff also provides research instruction to classes, creates online research subject guides and videos. Reference librarians and peer research tutors are available for research assistance in-person, virtual chat, texting, email and by phone.

Ombuds

Centennial • A-324 • 719-502-2012

The PPSC Student Ombuds is a neutral person available to assist students who are seeking resolution to problems or concerns relating to their educational experience at PPSC. The Ombuds can help students navigate college organizational structure and bureaucracy and assist with understanding of policies and procedures. For additional information call 719-502-2012 or email ombuds@pikespeak.edu.

Records

Centennial • A-107 • 719-502-3000
Downtown • DO-S100 • 719-502-3000
Rampart Range • S-102 • 719-502-3000

All records of enrollment at PPSC are kept in the Student Services Centers. Transcripts are available upon request within certain timelines, normally one to three days for processing. Transcripts are not released without the student submitting a transcript request form and will not be released until all accounts with the College are current. Students may view their records and ask to have information corrected or kept private. Transcript request instructions can be found online at www.pikespeak.edu/records/request-transcripts.

The College releases directory information upon legitimate request. Directory information is defined as a student's name, semesters attended, most recent previous school attended, major field of study, and degrees and awards received. To keep this information private, students may file a written request with the Student Services Centers. The form is located at www.pikespeak.edu/records.

All students attending classes at PPSC are assumed to be independent, and therefore, information, other than directory information, is not provided to parents or other persons or agencies unless the student authorizes the release of data by completing the FERPA Student Consent form.

No transcript or information other than that listed above is normally released to the public without written consent that specifies the information to be released. The College releases records and accounts to appropriate U.S. government representatives in compliance with federal statutes. In addition, certain state officials may lawfully be entitled to information from student records.

Information concerning the Family Educational Rights and Privacy Act is available in the Students Services Centers and online at www.ed.gov/policy/gen/guid/fpco/ferpa/index.html.

All application/records materials become property of PPSC when submitted to the institution.

Southern Colorado Educational Opportunity Center (SCEOC)

Centennial • A-110 • 719-502-3028

The SCEOC helps low-income or first-generation college students. Services include help with completion of financial aid and admission applications, guidance in selecting a college, and information about current scholarships as well as online scholarship searches, federal tax preparation, career counseling, testing, and workshops. All services are free.

The Counseling Center

Centennial • A-141
Downtown • DO-S126a
Rampart Range • N-107c

Between classes, work, family, finances and regular life events, college students encounter a great deal of stress over the course of their education. While most students cope successfully with the demands of college life, for some the pressures can at times become overwhelming and unmanageable. At those times, The Counseling Center is here to help. We have licensed counselors who provide confidential counseling sessions, intervention and support, and referrals to campus and community resources as well as for ongoing counseling and Mental Health care.

To reach our Counselors call 719-502-4782. If you or another person experiences a mental health crisis or other emergency outside of normal business hours, call Campus Police at 2911 from campus. If you are off campus go to your nearest Emergency Room or dial 911.

As always, if you are on campus and experience or observe a dangerous situation call Campus Police at 2911.

Online resources are also available at www.ulifeline.org/, an anonymous, internet-based resource that provides students with non-threatening and supportive links to information and resources, and information regarding stress, pressures of college life, depression or mental illness and more. ULifeline was created by students for students with the support of the JED Foundation and under the supervision of respected mental health professionals (adapted from www.jedfoundation.org retrieved January 2007).

Important Note: By acting as a resource broker for the aforementioned services (i.e., counseling, treatment, re-entry programs and rehabilitation services), the State of Colorado, the State Board for Community Colleges and Occupational Education (SBCCOE), Pikes Peak State College and its former and current employees assume no responsibility/liability for the services (or lack thereof) provided by the referred agency or agencies.

Pikes Peak State College, the State of Colorado, the State Board for Community Colleges and Occupational Education (SBCCOE), and its former and current employees are not responsible for any content on Ulifeline's website that is posted outside of PPSC's dedicated web space.

TRIO Student Support Services

Centennial • A-130 • 719-502-3222
Downtown • DO-S126
Rampart Range • S-102f

www.pikespeak.edu/student-support-services

The TRIO Student Support Services Office is available to help low income and first-generation students graduate and transfer to a four-year college and all of our services are FREE.

Student Support Services offers the following services to program participants:

- One-on-one tutoring in multiple subjects, including math
- Assessment of learning strategies and study skills
- Customized study skills help
- Academic and career planning

- Four-year college university campus tours and transfer advising
- Professional and peer academic mentoring
- Scholarship and financial aid searches
- Financial and economic literacy workshops
- Pre-semester conferences and workshops

We serve a limited number of students every year and we invite you to apply. You can pick up an application at our Centennial Campus office or download from www.pikespeak.edu/student-support-services.

Requirements

U.S. Citizen or legal permanent resident, low-income, First Generation, have a disability, or are a Veteran.

Visitation Program (Four-year Colleges & Universities)

All Campuses • 719-502-3232

Representatives from four-year schools regularly visit Pikes Peak State College to meet with students who plan to transfer after receiving an associate degree from PPSC. The schedules are available online.

STUDENT LIFE

In This Section

Student Life

Centennial • A-210 • 719-502-2522
Downtown • DO-N106b • 719-502-2538
Rampart Range • S-207 • 719-502-2577

Activities

The Student Activities Office offers a full schedule of cultural, wellness, arts, and topical events aimed at enriching student life on campus. Some examples of past events are De-Stress Fest, Label Jars Not People, Multicultural Awareness Conference, Casino Night, International Festival, Tables of Brotherhood and Film Screenings. These events are either stand-alone or co-curricular, teaming up with Faculty to enhance learning outside of the classroom. Lifestyle activities include blood drives and personal growth focused programs. Student Activities includes a focus on inclusive programming such as Black History Month, Indigenous History Month, LatinX History Month, Women's History Month, Asian/Pacific Islander History Month and LGBTQIA History Month. Current events are covered with a wide range of speakers, panels, forums and workshops. The Student Activities Office invites your ideas and participation. Please call 719-502-2091 for more information.

Campus Center

Centennial Campus houses a campus center, called The Grove, where student faculty and staff can relax and build community. This facility is "home away from home" where one can find a lounge area, study space, TV, free Wi-Fi, music and games. Student Government is located across the hall. Student Life Offices are located here. The Downtown and Rampart Range Campuses each house student space for lounges, study areas, activities, vending machines and Student Life.

Mission Statement: Student Life invests in student success by building community through programs, services and environments that inspire learning, promote personal growth, and foster responsible citizenship.

ID Cards

Every PPSC student needs a photo Student Identification Card. A properly validated Student ID Card enables students to use the Library to check out materials or use the computer lab or other services. It also entitles students to free or reduced admission to student plays, dances, events, and other activities.

Students may obtain a Student ID Card their first semester at PPSC at the Campus Center Info Desk at Centennial, the Downtown, or Rampart Range Campuses. This ID is valid for the student's entire career at PPSC. If the ID Card is lost, students can obtain a replacement ID for a charge. Proof of identification such as a driver's license, photo ID, etc., is required for all new and replacement IDs.

Other Photo ID's. The Student Life office will also produce special ID's for nursing practicum students, Fitness Center members, etc. upon special arrangement for a nominal charge.

Office of Sustainability

Sustainability is relevant to all academic, technical, and vocational programs. As an individual, sustainability teaches students how to save money, improve health, and reduce waste. As a student, sustainability explores the connections between economic prosperity, social equity, and environmental sustainability. These concepts and practices prepare students to address society's most pressing problems and give them a competitive advantage in applying for jobs.

Common at most universities, Pikes Peak State College is the first and only community college in Colorado to have a dedicated Office of Sustainability. Our vision is for a thriving, equitable, and resilient Pikes Peak State College. Our mission is to work alongside students, faculty, and staff to develop a culture of resource conservation, social responsibility, and financial stewardship. The Green Campus Fee of $0.39 per credit hour supports a sustainability coordinator and operating budget.

Our Services

- Employment: We provide employment opportunities for all students.

- Engagement: We partner with staff and faculty to plan events and activities.

- Curriculum: We support faculty in incorporating sustainability into their classes.

- Operations: We advise staff on reducing waste, increasing resource efficiency, and purchasing sustainable products and services.

- Strategic Planning: We collaborate with administrators to integrate sustainability into the college's strategic plan and conduct college-wide sustainability assessments.

To learn more and get involved, visit our website: www.pikespeak.edu/sustain.

Recreation and Wellness

Centennial • A-262 • 719-502-2555

The Recreation and Wellness Office is in the Centennial Campus Fitness Center/Gymnasium. The Fitness Center is a state-of-the-art cardiovascular/weight training facility with full functional training areas and much more. The facility has computerized bicycles and treadmills; a weightlifting circuit, elliptical trainers, AMTs; stair stepper, C2 rowers, Airdynes, bench press, squat stations, dumbbells, kettlebells, medicine balls and much more.

The gymnasium is open for recreation use by students and staff as long as academic classes are not taking place. Open gym

activities include basketball, volleyball and spikeball. The recreation program includes monthly challenges, recreational tournaments, wellness events and outdoor equipment rentals. The office schedules/coordinates the gymnasium, track and soccer field.

PPSC has three independent sports teams. Co-ed soccer, martial arts, and volleyball teams that compete in recreation leagues. The club sports teams are housed at the Centennial Campus in the Recreation and Wellness Office. For more information about the athletic programs, call 719-502-2555.

The Fitness Center/Gymnasium are open to all currently enrolled students. A brief orientation and Student ID are required to gain access to the facility. If you have any questions, please contact office at 719-502-2555.

Student Clubs and Organizations

More than 20 active student clubs and organizations are available on campus. Some are active relative to an academic/professional area such as Phi Theta Kappa (PTK), Phi Beta Lambda (PBL), Club America Sign Language (CASL), Nurses Organization (PPSCANS) and Student Veterans of America (SVA), etc. Others are related to activities/interests such as basketball, skiing. Still others are active along multicultural/ethnic interest lines, such as Japanese Culture Club, Multicultural Student Union, etc. Involvement in clubs and organizations is a great way to meet students, to learn and practice leadership skills, and to gain a sense of belonging and loyalty to PPSC.

Student Government

Participation in Student Government is a great way to strengthen leadership skills. Student leaders work on various issues affecting students and allocate student activity fees to enhance campus life. Student Government is composed of the president, vice president, secretary, and treasurer; 12 senators; and a State Student Advisory Council representative.

Elections are held during spring term. The executive officers are elected during spring term. All elections are now done via an online ballot, watch your student e-mail accounts for information.

SERVICES FOR THE COMMUNITY

In This Section

Because we are a community college, we continually develop new ways to contribute to our community. To make education more accessible, we offer classes at a variety of locations and times. eLearning and outreach locations make classes convenient for residents in all parts of our service area. We work with local school districts to provide educational opportunities for high school students.

Activities and Events

As a service to the community, PPSC opens all of its campus activities and events to the public, many free of charge. A sampling of public activities and events are as follows:

- African American History Month
- Cinco de Mayo Events
- Family Events
- Living History Series
- Native American Heritage Events
- Social Activities
- Veteran's Day Observance
- Women's History

For more information, call the Student Life Office at 719-502-2522.

Career Advancement, Customized Training and Workforce Development

The Workforce Development Division provides career advancement courses for individuals and customized training programs for employers. Affordable non-credit courses are available online and in the classroom throughout the year. During the summer, our Teen College camp offers incoming 7th, 8th and 9th graders fun experiential weekly sessions to explore career pathways.

Workforce Development also offers customized training programs which include a diverse assortment of training solutions and services to help employers meet their training needs. Employers are offered a free training assessment and provided with recommended solutions. In addition, industry-focused, entry-level job training programs are offered to meet the immediate hiring needs of local companies.

The Division also administers grants to assist companies with funding workforce training. For more information, access our webpage at www.pikespeak.edu/workforce-development, or call the Workforce Development Division at 719-502-2404.

Located at the Catalyst Campus for Technology & Innovation, the PPSC Cyber Range provides a controlled virtual environment where cybersecurity students and security professionals can practice their skills and prepare for real-world situations.

For more information, contact our office at 719-502-2404 or email contactce@pikespeak.edu.

The Downtown Gallery

The Downtown Gallery is located in the Downtown Campus of Pikes Peak State College at 22 N. Sierra Madre Avenue. It is a public gallery with a multicultural emphasis. Six to eight exhibits created primarily by artists in the Pikes Peak region, including faculty and students, are offered each year, free and open to the public. Opening receptions often include music, poetry, and dance performances that enhance the theme of the show. For more information, call 719-502-4040.

eXtra Music 102.1 FM

Students in the Broadcasting and Electronic Media program at Pikes Peak State College can be heard in Colorado Springs on 102.1 FM or anywhere in the world streaming online at pikespeak.edu/eXtraMusic.

eXtra Music 102.1 FM is commercial free, student-powered maximum variety with 80's Flashbacks, 90's Retro Rewinds, 2000's Throwbacks and only the best alternative music of today.

Throughout the semester, Broadcasting and Electronic Media students produce many public service announcements and promotional announcements of interest to PPSC students and community members. Listeners will receive information about the community as well as PPSC activities and events, many that are free and open to the public.

eXtra Music 102.1 FM is on the air 24 hours a day, seven days a week, 365 days a year.

For more information, call 719-502-4102.

PPSC-tv

You can see the results of all the hard work Radio and Television students put into their video work on PPSC -tv, channel 21 on Comcast, 78 on Falcon Broadband, and 8002 on CenturyLink PrismTV. Broadcasting twenty-our hours a day, seven days a week, all programming is student produced and the channel is student driven.

Featuring interviews, profiles of other PPSC programs, showcases of student and artist works, public service announcements, and promotional announcements of interest to PPSC students and community members. Viewers get a peek inside student life at PPSC, get community news and information, and encapsulations of PPSC activities and events.

MILITARY, VETERANS, AND FAMILY MEMBERS

In This Section

Military and Veteran Affiliated Students

Centennial • C222 • 719-502-4100
Rampart Range • S102 • 719-502-4500
Fort Carson Education Center • Building 1117 • Room 117 • 719-502-4200
Peterson SFB Education Center • Building 1141 • Room 112 • 719-502-4300
Shriever and USAFA • contact our Peterson SFB office to schedule an appointment on site

Website: pikespeak.edu/military
Email: mvp@pikespeak.edu

PPSC's Department of Military & Veterans Programs (MVP) is here to serve our active duty, veterans, and family members in supporting your educational goals. We recognize that unlike traditional students your military commitments and educational benefits can create extra challenges for you to navigate while pursuing your education. Pikes Peak State College is a proud participant in the Department of Defense Memorandum of Understanding, approved for veteran education benefits, as well as being recognized as both Military Friendly and Best for Vets. We are passionate about providing resources and services designed to foster student success. Our staff members are active in both state and national organizations committed to providing best practices for military and veteran students.

For all military and veteran students, MVP provides:

- Resources for educational and community support while attending college
- Programming and activities to help with academic success
- Networking opportunities
- Academic Advisors that understand the requirements of your military education funding.
- Military and Veterans Programs staff that understand college, VA and DOD processes and can assist mitigating conflicts due to military duty.

Active Duty, veterans and eligible family members who indicate their military status and/or military affiliation on the PPSC application will receive Resident Tuition rates based upon their response. Military and Veteran affiliated students who did not select yes to military veteran status on their application can submit an application for instate tuition classification at www.pikespeak.edu/military/instate-tuition.

Active Duty and Family Members /Guard and Reserve

For your convenience we have college offices located at both Fort Carson and Peterson SFB Education Centers, providing you an all but one-stop shop to get started at PPSC. USAFA and Schriever AFB are by appointment only.

- Application, Advising, Placement Testing, Registration, and other college services
- Tuition Assistance-- ArmyIgnitEd, Air Force Portal, and other branches of service TA
- Colorado National Guard Tuition Assistance
- MyCAA—My Career Advancement Account funding for eligible spouses. Request your Education & Training Plan at www.pikespeak.edu/mycaa
- CLEP and DSST Testing
- Joint Service Transcript Evaluation (active duty)—Prior Learning Assessment (PLA)
- Student Agreement/Evaluated Degree Plan preparation
- On post, on base General Education classes offered in shorter terms and/or hybrid formats to meet your scheduling demands; no student or course fees for on post/base classes.
- Liaison with instructional divisions if experiencing a military related conflict
- Automatic evaluation of Joint Services Transcripts when you request Tuition Assistance or Certification for Veterans Education Benefits—JSTs will be evaluated for credits that apply to your current declared major.

Getting Started using your Tuition Assistance:

- The Department of Defense requires all active duty to meet with their Education Service Officer/Military Counselor prior to enrolling. Contact your Education Center for the mandatory briefing.
- Stop by our office on post/base for assistance with completing the application process, placement testing or exemption based on prior college, and course enrollment.
- Register for PPSC classes. If you need developmental courses, you must take a placement test to justify the courses for Tuition Assistance. More information available at www.pikespeak.edu/placement.
- Visit the TRIO office on Fort Carson for help filling out your FAFSA (Free Application for Federal Student Aid) with experts on military income (required for PELL Grants and other Financial Aid).
- Army Tuition Assistance users must create an ArmyIgnitED account, select an Education Path, and complete the admissions and registration processes through PPSC. Step by step instructions provided at https://www.pikespeak.edu/admissions/military/benefits/TA.php

- Tuition Assistance Request Deadlines:
    - Army / Air Force – TA requests must be submitted for approval no later than seven (7) days prior to start of term per class.
    - Navy /Coast Guard – TA requests must be submitted for approval no later than fourteen (14) days prior to start of term per class.
    - Marines—TA requests must be approved prior to the start of term date for the class.
    - Colorado National Guard – See application instructions and deadlines dmva.colorado.gov/tuition-assistance

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at www.benefits.va.gov/gibill.

Veterans / GI Bill® Benefit Users

Centennial • C222 • 719-502-4100
Rampart Range • S102 • 719-502-4500
mvp@pikespeak.edu

GI Bill® Education

All students intending to use their GI Bill® benefits for the first time at PPSC must attend a briefing session that addresses how to maximize their benefits, what is funded, what is not funded, and the steps required to use their benefits at PPSC. Additionally, the briefing will provide campus and community resources for veterans and their dependents to support a successful academic experience. Failing to attend the briefing will delay PPSC submitting your enrollment to the VA for payment. Briefing schedules and registration are available on our website at pikespeak.edu//briefing.

Services Available

- Assistance with applying for benefits
- School Certifying Officials (PPSC employees who are your liaison to the Veterans Administration)
- Academic Advising specifically addressing GI Bill® requirements
- Veteran to Veterans
- Textbook Lending Library
- Veterans Upward Bound/TRIO Support
- Transition Support—Veteran Success Coordinator
- Programming, activities, and networking opportunities
- Veterans Upward Bound—academic prep and college support
- VA Work Study employment opportunities

Getting Started Using your GI Bill®

- Apply to PPSC and identify yourself as a Military and/or Veteran affiliated student
- Complete mandatory VA Education Benefits Briefing (pikespeak.edu) for GI Bill® users at PPSC (pikespeak.edu/briefing).
- Apply for your GI Bill® Benefits with the VA (www.va.gov/education/how-to-apply) **Save a copy of your application confirmation page as PDF file, and upload to Mil/Vet tab in your student portal.
- Visit our webpage (pikespeak.edu/military) for additional information about our resources (chapter specific checklist, scheduling advising appointments, military/veteran events)

Using GI Bill® Education Benefits at PPSC

- Request certification (excluding CH31) each semester you intend to use VA education benefits to pay for your courses (pikespeak.edu/military/crf)
- Enroll in classes
- Make sure all your courses are applicable to your degree *(Reminder: If you need developmental courses, you must take a placement test to justify the courses for Veteran Education benefits. More information available at* www.pikespeak.edu/placement.
- Monitor your student email for School Certifying Official communication.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at www.benefits.va.gov/gibill.

Veterans Upward Bound

Centennial • C220 • 719-502-4020
mvp@pikespeak.edu

Veteran/GI Bill® Benefit User Orientation

The Veterans Upward Bound (VUB) program offers free workshops, classes and advising to qualified veterans and active- duty military members. The classes offered are English, math, Spanish, basic science, computer skills and career counseling. All class materials are provided by VUB. VUB staff members can provide enrollment assistance for financial aid, scholarships, admission applications and campus tours. Emphasis is on low-income and first-generation students. VUB classes do not count for college credit but prepare the student to transition into college level academics.

EDUCATIONAL PROGRAMS

In This Section

Degree and Certificate Criteria

Associate of Arts Degrees (AA) can be found on page 53.

Associate of Science Degrees (AS) can be found on page 83.

Associate of General Studies Degree (AGS) can be found on page 93.

Associate of Applied Sciences Degrees (AAS) and Certificate program can be found on page 96.

Associate of Engineering Science Degree (AES) can be found on page 175.

Bachelor Applied Science Degree (BAS) can be found on page 175.

- AA/AS Degrees with Designation - A Statewide Transfer Articulation Agreement, known as a Degree with Designation (DwD) in the Colorado community college system, is an agreement among Colorado community colleges and four-year colleges/universities. These agreements allow you to graduate from a community college with a 60 credit Associate of Arts (A.A.) or Associate of Science (A.S.) degree with designation, such as an Associate of Arts in Business; enroll with junior status at a university; and complete the bachelor's degree in no more than an additional 60 credits (for a total of 120 credits) unless the Colorado Commission on Higher Education has approved an exception. If you attend full-time (15 credits per semester), do not need developmental courses, and follow the structured schedule, you can complete your bachelor's degree in four years.
- AA/AS Without Designation – These are the following degree programs that are not included under the state articulation agreements. When you finish these programs, the degree will read Associate of Arts/Science without the "in a discipline" designation. These degrees are still covered under institutional agreements between a community college and a four-year college/university. However, check with your academic or faculty advisor discuss the transfer options. Disciplines without degrees with designation include: Dance, Environmental Sustainability Studies, World Language, Humanities, Professional Writing, Social Work Transfer.

Associate of General Studies Degree (AGS) allows maximum flexibility to mix career and transfer courses with options for possible transferability. Some credits may not transfer and is not approved for 60/60 articulation. Associate of General Studies Degree (AGS) can be found on page 93.

Associate of Applied Sciences Degrees (AAS) and Certificate programs are designed for entry to the workforce. These also include Career and Technical Education. Associate of Applied Sciences Degrees (AAS) and Certificate programs can be found on page 98.

Associate of Engineering Science Degree (AES) is designed for students who intend to pursue a four-year degree in an engineering field. Associate of Engineering Science Degree (AES) can be found on page 175.

Bachelor Applied Science Degree (BAS) 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, PPSC 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 PPSC 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.

GT Pathways courses, in which the student earns a C- or higher, will always transfer and apply to GT Pathways requirements in AA, AS and most bachelor's degrees at every public Colorado college and university. GT Pathways does not apply to some degrees. You should always seek advising from the appropriate advisor at the college or university you plan to attend to ensure you are selecting the appropriate coursework for your degree and that it will apply to those degree requirements.

Degree Eligibility

Students who receive an AGS degree may subsequently pursue an AA, AS or AAS degree. If they have received an AAS degree, they may pursue an AA, AS or AGS degree. However, students who have completed the degree requirements for an AA or AS degree from PPSC may not then also apply for an AGS degree.

PPSC will accept 45 applicable credits toward a second degree or certificate.

Having earned an associate or higher academic degree from an accredited school generally disqualifies students from receiving an associate degree from PPSC in an identical or closely related program. However, students may appeal this decision.

College Preparatory Programs

Purpose and Goals

To maximize student success, PPSC provides college prep courses so students can be assured they are prepared to begin their course of study. Students enroll in college prep courses in mathematics, English, and study skills (Advancing Academic Achievement courses) as prerequisites for college courses as well as for personal enrichment. Research indicates that students who need and take these courses do better in their college-level courses than they would have without them.

Students who place into college prep courses in mathematics and/or English must complete college prep courses within the first 30 semester credit hours. Students who have not completed college prep courses and have completed 30 or more semester credit hours must meet with an academic advisor before registering for additional coursework. Refer to Getting Started / Advising & Testing to speak with an academic advisor.

Advancing Academic Achievement

For students who have concerns about meeting the challenges of college academic requirements or for students who want to improve the study skills they may have learned in previous educational settings, Pikes Peak State College provides the Academic Achievement Program. Courses in this program are designed to help students develop personalized learning strategies in the areas of time management, goal setting, note-taking, test-taking, textbook reading, memory development, and critical thinking. Students are encouraged to enroll in the appropriate study skills course prior to starting their degree or certificate programs.

AAA 1009   Advanced Academic Achievement

For further information about the AAA 1009, please call 719-502-3600.

English Preparatory Program

College Preparatory English courses cover basic writing and grammar. These courses are a good refresher for students who have not written college reports or essays. The writing courses help students to express their thoughts in complete sentences, organized paragraphs, and whole compositions.

ENG 0094   Studio 121

Mathematics Preparatory Program

College preparatory mathematics courses prepare students for college-level mathematics courses or entry into many occupational programs. Enrollment is based on the math pathway needed for a student's desired degree program.

MAT 0300   Algebraic Literacy

English as a Second Language Preparatory Program

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English as a Second Language (ESL) is located at the Centennial Campus. It is a semi-intensive program, designed to meet the needs of non-native English speakers. ESL serves students who wish to improve their English reading, writing, and speaking skills. Many ESL students plan to attend an American college or university or need to improve their English skills for the workplace.

Any student who is interested in taking ESL courses must take the ESL placement exam. Non-native speakers of English who cannot demonstrate College Reading & Writing Literacy should take the ESL placement exam and be advised by an ESL advisor.

English as a Second Language has three levels of study: basic, intermediate, and advanced. ESL courses include grammar, pronunciation, composition, reading, and listening/speaking. Full-time students may complete coursework in ESL in three semesters.

For more information about English as a Second Language at Pikes Peak State College, visit our website at www.pikespeak.edu/esl or call 719-502-3535.

Basic Level

ESL 0021	Basic Grammar	5
ESL 0031	Basic Listening & Speaking	4
ESL 0041	Basic Reading	4
		13

Intermediate Level

ESL 0022	Intermediate Grammar	5
ESL 0032	Intermediate Listening & Speaking	4
or		
ESL 0042	Intermediate Reading	(4)
ESL 0052	Intermediate Composition	4
		13

Advanced Level

ESL 0023	Advanced Grammar	5
ESL 0043	Advanced Reading	4
ESL 0053	Advanced Composition	4
		13

Additional electives can be taken at any time after Basic Level. These electives do not count toward level completion in English as a Second Language.

ESL 0011	Basic Pronunciation	3
ESL 0012	Intermediate Pronunciation	3
ESL 0054	ESL Reading and Composition Foundations	5

ESL students who have completed all three Advanced Level ESL courses and plan to continue enrollment in college level courses at PPSC should complete ESL 0054 ESL Reading and Composition before enrolling in ENG 1021 English Composition I: CO1.

Class Format Options

PPSC offers a variety of non-traditional learning options for students including traditional, online, and alternate deliveries. Go to www.pikespeak.edu/admissions/class-plans.php to review options.

Online and alternative delivery classes meet the same class outcomes as their traditional counterparts and are subject to the same transfer agreements. In addition, there are transfer agreements with colleges both in-state and out-of-state that offer Baccalaureate completion programs using distance/electronic technology.

Traditional Classes

Face-to-face classes that meet on campus at pre-determined times.

Online Classes

Classes are entirely online with no real-time expectations. Classes may be taken using home computers or the computers at PPSC in the instructional computer labs. Internet access and an email address are required.

CCCOnline (Sections C11, C21) and Colorado Online (Sections CZ1, CZ2, CZ4, CZ5)

Courses are offered through a consortium of thirteen community colleges in Colorado. Students will register as a PPSC student, but an instructor may teach the classes from any of the thirteen colleges. For more information regarding CCCOnline go to www.ccconline.org. For more information regarding Colorado Online classes go to www.cccs.edu/colorado-online.

PPSC Online Campus (Sections 1N1, 2N1, 3N1, etc.)

PPSC online class taught by PPSC instructors. If you are interested in registering for a PPSC Online class, look for sections with an N in the section number (for example, BUS 115 1N1).

1N* sections are Full semester courses
2N* sections are 1st Bi-Semester courses
3N* sections are 2nd Bi-Semester courses
4N* sections are Late Start courses

Hyflex Classes

A highly flexible experience where the class is delivered entirely remotely in real-time, entirely in person in real-time, or a combination of the two. For Hy-flex with Lab classes, lab will require in-person attendance.

Hybrid Classes

Part online, part in the classroom. Hybrid courses are courses that combine on-campus classroom instruction with online learning components and/or out-of-class activities. Hybrid learning is for students who wish to combine the flexibility of face-to-face instruction with activities such as online collaborative discussions, group projects, and/or other out-of-class assignments. In a Hybrid Class, traditional face-to-face instruction will be reduced but not eliminated. Internet access and an email address are required for the online Class activities.

If you are interested in registering for a Hybrid Class, look for sections with an H in the section number (for example, BUS 115 1H1).

1H* sections meet at Centennial Campus

2H* sections meet at Rampart Range Campus
3H* sections meet at the Downtown Studio Campus
9H* sections meet at various Military installations

Remote Classes

Class will be taught in real-time with 100% remote delivery at pre-determined times. There is no scheduled in person attendance. Class will be 100% real-time live meetings delivered remotely via technology.

If you are interested in registering for a Remote Class, look for sections with a V in the section number (for examples, BUS 115 1V1).

1V* sections are Full semester courses
2V* sections are Bi-Semester courses
3V* sections are Tri-Semester courses
4V* sections are Late Start courses

Prior Learning Assessment (PLA)

Students may earn credit for learning outside the classroom. Prior Learning Assessment must apply to a degree or certificate goal. Credit is given for the following:

- portfolio: learning through experiences such as reading and study, work, and on-the-job training or special classes
- standardized testing: a satisfactory score on nationally accepted tests such as CLEP and DSST
- published guide: learning given in a nontraditional setting such as a military or industry classroom which must be evaluated in a published guide by a nationally known organization such as the American Council on Education (ACE)

PPSC evaluates prior learning through the Prior Learning Assessment program (PLA). Students may receive up to 75 percent of their total credits for all types of prior learning. For more information, stop by the Student Services Center at the Centennial Campus, or call 719-502-3000. Military and Veteran students, contact Department of Military & Veterans Programs at mvp@pikespeak.edu.

Students who wish to receive credit for prior learning and plan to transfer to another college or university should verify these credits will transfer. Policies on awarding transfer credit vary from school to school.

Independent Study Courses

Extended learning options may be offered for students who cannot come to the PPSC campus or cannot attend courses that are scheduled for a standard semester. Learning options available for both regular curriculum and special contract programs include independent study.

College credit is awarded for these courses.

Students receiving financial aid are cautioned to contact the Student Services Centers when registering for independent study courses.

Service Learning Program

Service Learning is a teaching and learning strategy that integrates meaningful community service with course content and reflection to enrich the learning experience, teach social and civic responsibility and strengthen communities. Service learning is fully integrated into the formal academic course. For additional information and to see a current list of classes offered, visit

www.pikespeak.edu/High-Impact-Learning/service-learning-courses.

Options for Current High School Students

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Career Start

High school junior and senior students may enroll in Career Start which provides career and technical training in the program areas listed below. Career Start is a cohort program that enrolls students into Pikes Peak State courses applicable to a career pathway for college and high school credit. Classes are in person and on the Centennial Campus from 9-11:40 a.m., Monday through Friday and follow a Career Start specific calendar.

Career Start Programs

- Auto Collision Technology
- Automotive Service Technology
- Building and Construction Technology
- Criminal Justice
- Culinary Arts
- Cyber Security
- Diesel Power Technology
- Early Childhood Education
- Emergency Medical Technician
- Fire Science Technology
- Health Career Exploration (Medical Assisting, Medical Records & Reception, Medical Billing & Coding)
- Health Science Technology (Certified Nursing Assistant)
- Multimedia Graphic Design
- Radio and Television
- Veterinary Assisting
- Welding
- Zoo Keeping Technology

Students enroll in the Career Start as part of their daily high school schedule. School districts under contract pay the costs of this program. The Career Start Program delivers career and technical education that provides each student with the concepts, academic and technical competencies, career skills, attitudes, and work habits essential to gain entry-level employment following high school graduation.

Instruction is provided in a two hour and forty-minute day, five-day-a-week schedule throughout the school year. Instruction is provided in classrooms, laboratories, and community settings that use equipment similar to that used in business and industry.

Enrollment in Career Start is completed at the high school. Contact your high school counselor or call PPSC High School Programs at 719-502-3111 for more information.

Articulation Agreements

High school students may earn college credits by successfully earning an A or B grade in approved career-technical education courses at their high school. Pikes Peak State College has articulation agreements with most local school districts. A transcription fee of $10 per PPSC course is applicable. Articulated courses can apply toward corresponding degrees and certificates at Pikes Peak State College but are not designated as transfer courses to four-year colleges and universities. For more information, call PPSC High School Programs at 719-502-3111.

Concurrent Enrollment

Concurrent Enrollment (CE) enables high school students to take college classes at PPSC and earn high school and/or college credit. Students have the opportunity to enroll in any courses for which they meet the prerequisites and applicable to students' future career and academic goals.

To participate in CE, students must obtain permission from a parent or guardian, high school counselor and/or district administrator and must apply for the College Opportunity Fund (COF). Many school districts have a cooperative agreement with PPSC and may pay for the tuition as well as fees and/or books for qualifying courses. Contact your high school counselor for more specific information. Home-schooled students are also welcome to participate. Contact the High School Programs Office at 719-502-3111 for more information.

Degree Start

Degree Start is a program for junior and senior high school students majoring in a liberal arts field. Students interested in Degree Start will demonstrate their readiness to be successful in college level courses through placement testing. Classes are in person and on the Centennial Campus from 9-11:40 a.m., Monday through Friday and follow the traditional college instructional calendar. Classes for Degree Start are predetermined, cannot be substituted, and include English composition, philosophy, sociology, and communication. Students should talk with their high school counselors to determine if Degree Start is a good fit to meet high school graduation requirements and to start earning college credits toward a liberal arts transfer degree. For more information, contact High School Programs at 719-502-3111 or hsp@pikespeak.edu.

Pivot

The Pivot program is an opportunity for students between the ages of 16-20 who have disengaged or are at risk of disengaging from their high schools to earn a high school diploma and free college credits.

There are three criteria for identifying the ideal candidate:

• A student who expresses the desire to complete a high school diploma (rather than an equivalency diploma).

• A student at least 16 and who can earn enough high school credits to fulfill graduation requirements by 21 years of age.

• A student who has expressed some interest in post-secondary education or training.

School districts under contract with Pikes Peak State pay the costs of this program. Students taking part in Pivot need to be re-enrolled through a district program or school so that they may continue to add credits to a high school transcript. A school counselor supports the Pivot Success Coach with the development of a student success plan. Pivot students spend 100% of their school time on the college campus. For more information, contact High School Programs at 719-502-3111 or hsp@pikespeak.edu.

High School Student Records

All students attending courses at PPSC are assumed to be independent, and therefore, information is not provided to parents. Students may authorize the release of any data to any person or agency by completing the "Release of Non-Directory Information" form.

For additional information on options available for current high school students, visit www.pikespeak.edu/hsp.

DEGREE & PROGRAM REQUIREMENTS

In This Section

Associate of Arts Degrees (AA)

The Associate of Arts Degrees and Course of Study are designed for students who want a traditional liberal arts education and who intend to transfer to a four-year college or university. They provide a basis of study in the areas of arts and humanities, communication, or social sciences.

Pikes Peak State College partners with other Colorado community colleges and four-year universities to guarantee transfer of the Associate of Arts degrees and Course of Study. Adherence to the Colorado Community College System 60+60 Bachelor's Transfer Program guarantees that at least 60 hours will transfer completely, upon admission, to a Bachelor of Arts major in Colorado's public four-year institutions, where students are guaranteed to be able to finish the Bachelor of Arts degree with an additional 60 credit hours of study. Receiving institutions will accept all applicable credits earned within ten years of transfer to the receiving institution. Credits earned over ten years will be evaluated on a course-by-course basis.

In addition to the Course of Study, Pikes Peak State College participates in a statewide articulation agreement for the guaranteed transfer of an Associate of Art in Business, Elementary Teacher Education, and Early Childhood Teacher Education. Students should review the degree requirements of the four-year university of interest and work with their PPSC faculty advisor to ensure a smooth transfer.

To earn an Associate of Arts Degree, students must complete Colorado Community College System 60+60 Bachelor's Transfer Program outlined below. The course requirements total 60 semester credit hours, at least 35 of which must be Colorado State-Guaranteed Courses, and students must earn a C or better in each class.

Courses marked with an asterisk [*] are not currently offered at PPSC.

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication
Three (3) credit hours

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3

Mathematics
Three (3) credit hours GT Pathways Mathematics course (MA1)

GT-MA1: MAT 1240, MAT 1260, MAT 1320, MAT 1340, MAT 1400, MAT 1420, MAT 1440, MAT 2410, MAT 2420, MAT 2430, MAT 2431, MAT 2520, MAT 2560, MAT 2561*

Arts and Humanities / Social and Behavioral Sciences
Fifteen (15) credit hours

Two GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4)

Two GT Pathways Social and Behavioral Sciences courses from two different areas (SS1, SS2, SS3)

One additional GT Pathways course from Arts and Humanities or Social and Behavioral Sciences (AH1, AH2, AH3, AH4, SS1, SS2, SS3)

GT-AH1: ART 1110, ART 1111, ART 1112, ART 1113, COM 1300, DAN 1025, DAN 1050, MUS 1020, MUS 1021, MUS 1022, MUS 1023, MUS 1025, THE 1005, THE 1008, THE 2011, THE 2012, THE 2015

GT-AH2: HUM 1003, HUM 1015, HUM 1021, HUM 1022, HUM 1023, LIT 1015, LIT 2001, LIT 2002, LIT 2005, LIT 2011, LIT 2012, LIT 2021, LIT 2022, LIT 2025, LIT 2046, LIT 2058, LIT 2059*, LIT 2068

GT-AH3: PHI 1011, PHI 1012, PHI 1013, PHI 1014, PHI 1015, PHI 1016, PHI 1041*, PHI 1042, PHI 2005, PHI 2013*, PHI 2014, PHI 2018, PHI 2020*

GT-AH4: FRE 2011, FRE 2012, GER 2011, GER 2012, ITA 2011, ITA 2012, JPN 2011, JPN 2012, RUS 2011, RUS 2012, SPA 2011, SPA 2012

GT-SS1: AGE 1102*, ECO 1001, ECO 2001, ECO 2002, ECO 2011*, ECO 2045, PSC 1011, PSC 1025, PSC 1050, PSC 2005, PSC 2020, PSC 2025

GT-SS2: GEO 1005, GEO 1006

GT-SS3: AGR 2106*, ANT 1001, ANT 1002*, ANT 1003, ANT 1208*, ANT 2115, ANT 2125, ANT 2550, COM 2300, CRJ 1010, JOU 1005, PSY 1001, PSY 1002, PSY 2105, PSY 2107, PSY 2221, PSY 2222, PSY 2331, PSY 2333, PSY 2440, PSY 2441, PSY 2552, PSY 2771, SOC 1001, SOC 1002, SOC 2005, SOC 2007, SOC 2016, SOC 2018, SOC 2020, SOC 2031, SOC 2037, WST 2000, WST 2100, WST 2200*, WST 2300*

History
Three (3) credit hours GT Pathways History course (HI1)

GT-HI1: HIS 1110, HIS 1120, HIS 1210, HIS 1220, HIS 1310, HIS 1320, HIS 2000, HIS 2005, HIS 2015, HIS 2105, HIS 2110, HIS 2115, HIS 2125, HIS 2130, HIS 2135, HIS 2140, HIS 2145, HIS 2200, HIS 2210*, HIS 2300, HIS 2310, HIS 2500, HIS 2510, HIS 2610

Natural and Physical Sciences

Seven (7) credit hours GT Pathways Natural and Physical Sciences courses (SC1, SC2), including at least one (1) lab course (SC1, SC2).

GT-SC1: AGY 2140, ANT 1005, ANT 2315, AST 1110, AST 1120, BIO 1004, BIO 1005, BIO 1111, BIO 1112, BIO 2101, BIO 2102, BIO 2104, BIO 2108*, BIO 2121, BIO 2124, CHE 1005, CHE 1011, CHE 1012, CHE 1111, CHE 1112, ENV 1111, GEO 1011, GEO 1012, GEY 1111, GEY 1112, GEY 1135, GEY 1155, MET 1050, PHY 1105, PHY 1107*, PHY 1111, PHY 1112, PHY 2111, PHY 2112, SCI 1055, SCI 1056

GT-SC2: AST 1140, BIO 1003, BIO 1016*, ENV 1010, GEY 1108, SCI 1105*

Electives

Twenty-three (23) credit hours selected from the AA approved course list can be found on page 54.

Total Credit Hours	60

Other Requirements

1. A minimum of 60 credit hours in a prescribed program of study with a cumulative grade point average of 2.0 (a C average). At least 15 of these credit hours must be earned from PPSC.

2. Only six (6) elective credits are allowed in any combination of PED courses.

3. Students may concentrate their study in a specialized area such as communication, journalism, or political science. Many "Course of Study" are included in the next section of this catalog.

4. Career and technical courses, whether taken at another institution or at PPSC, are not accepted toward this degree without approval of the Vice President for Instructional Services. Approval is given only when it is appropriate to the educational objectives of a student.

5. Courses numbered below 1000 do not apply toward degrees.

World Language Note: It is advisable to verify the world language admissions requirements for the university/four-year college you are planning to attend. For example, many of the Colorado four-year institutions require world languages for admission; the CU system requires 2-3 years of high school world language (or equivalent 2-3 semesters at Pikes Peak State College). Students planning to attend a Colorado four-year institution who do not have the prerequisite world language requirement from high school should consider enrolling in these courses in addition to the degree requirements.

Approved Elective Course List for AA Degrees and Course of Study

These courses are guaranteed to transfer as part of the 60+60 Bachelor's Degree Transfer Program. State-wide and individual college transfer agreements prescribe electives which transfer as part of those programs. Students who transfer prior to completing the AA degree are responsible for checking transfer of individual courses with the receiving four-year institution.

Arts and Humanities

ARA 1011	Arabic Language I	5
ARA 1012	Arabic Language II	5
ARA 2011	Arabic Language III	3
ARA 2012	Arabic Language IV	3
ART 1002	Visual Concepts 2-D Design	3

ART 1003	3-D Design	3
ART 1005	Digital Art Foundations I	3
ART 1006	Digital Art Foundations II	3
ART 1110	Art Appreciation: AH1	3
ART 1111	Art History Ancient to Medieval: AH1	3
ART 1112	Art History Renaissance to 1900: AH1	3
ART 1113	Art History 1900 to Present: AH1	3
ART 1115	History of Photography	3
ART 1117	Culture Studies	3
ART 1201	Drawing I	3
ART 1202	Drawing II	3
ART 1203	Figure Drawing I	3
ART 1204	Landscape Drawing I	3
ART 1205	Drawing for the Graphic Novel	3
ART 1301	Painting I	3
ART 1302	Painting II	3
ART 1307	Watercolor I	3
ART 1308	Watercolor II	3
ART 1401	Digital Photography I	3
ART 1402	Darkroom Photography I	3
ART 1405	Mixed Media I: Digital Arts	3
ART 1501	Printmaking I	3
ART 1502	Printmaking II	3
ART 1604	Jewelry & Metalwork I	3
ART 1605	Jewelry & Metalwork II	3
ART 1703	Ceramics I	3
ART 1704	Ceramics II Wheel Throwing	3
ART 1705	Raku	3
ART 1803	Weaving Techniques Southwest I	3
ART 1805	Stained Glass I	3
ART 1806	Stained Glass II	3
ART 2003	Advanced Visual Concepts 3-D Design	3
ART 2049	Mixed Media II: Digital Art	3
ART 2089	Capstone: Studio Art	1-6
ART 2201	Drawing III	3
ART 2202	Drawing IV	3
ART 2203	Advanced Figure Drawing	3
ART 2301	Painting III	3
ART 2302	Painting IV	3
ART 2307	Watercolor III	3
ART 2308	Watercolor IV	3
ART 2402	Darkroom Photography II	3
ART 2405	Portrait Photography	3
ART 2407	Landscape Photography	3
ART 2603	Jewelry and Metalwork III	3
ART 2604	Jewelry and Metalwork IV	3
ART 2703	Ceramics III Molding & Slip Casting	3
ART 2704	Ceramics IV	3
ART 2805	Stained Glass III	3
ART 2806	Stained Glass IV	3
ART 2901	Business of Visual Art	3
ART 2902	Marketing for Visual Arts	3
ART 2906	Studio Art	3
ASL 1121	American Sign Language I	5
ASL 1122	American Sign Language II	5
ASL 1123	American Sign Language III	5
ASL 1125	Fingerspelling	3
ASL 1135	Conversational ASL	2
ASL 2215	ASL Literature	3
ASL 2221	American Sign Language IV: AH4	3
ASL 2222	American Sign Language V: AH4	3
CHI 1011	Chinese Language I	5
DAN 1002	Feldenkrais Method for Performing Artists	3
DAN 1005	Hip Hop Dance I	1
DAN 1006	Hip Hop Dance II	1
DAN 1011	Modern Dance I	1
DAN 1012	Modern Dance II	2
DAN 1013	Modern Dance III	2
DAN 1014	Modern Dance IV	2

Course	Title	Credits
DAN 1017	Salsa I	1
DAN 1021	Jazz I	1
DAN 1022	Jazz II	2
DAN 1023	Jazz III	2
DAN 1024	Jazz IV	2
DAN 1025	Dance Appreciation: AH1	3
DAN 1029	Introduction to Dance	1
DAN 1030	Dance Sampler	1
DAN 1031	Ballet I	1
DAN 1032	Ballet II	2
DAN 1033	Ballet III	2
DAN 1034	Ballet IV	2
DAN 1041	Ballroom Dance	1
DAN 1042	Ballroom Dance II	1
DAN 1043	Tap I	1
DAN 1044	Tap II	1
DAN 1050	Dance History: AH1	3
DAN 1051	Belly Dance I	1
DAN 1052	Belly Dance II	1
DAN 1061	African Dance I	1
DAN 2011	Dance Composition & Improvisation I	3
DAN 2012	Dance Composition & Improvisation II	3
DAN 2021	Dance Performance I	2
DAN 2022	Dance Performance II	2
DAN 2024	Dance for Musical Theatre I	3
DAN 2025	Dance for Musical Theatre II	3
DAN 2026	Pointe	1
DAN 2027	Pointe II	1
DAN 2051	Belly Dance III	1
DAN 2053	Belly Dance Performance I	1
DAN 2054	Methods of Teaching Dance	2
DAN 2055	Dance for Camera	2
FRE 1001	Conversational French I	3
FRE 1011	French Language I	5
FRE 1012	French Language II	5
FRE 2011	French Language III: AH4	3
FRE 2012	French Language IV: AH4	3
GER 1011	German Language I	5
GER 1012	German Language II	5
GER 2011	German Language III: AH4	3
GER 2012	German Language IV: AH4	3
HUM 1003	Introduction to Film Art: AH2	3
HUM 1015	World Mythology: AH2	3
HUM 1021	Early Civilization: AH2	3
HUM 1022	Medieval - Modern: AH2	3
HUM 1023	Modern World: AH2	3
ITA 1001	Conversational Italian I	3
ITA 1011	Italian Language I	5
ITA 1012	Italian Language II	5
ITA 2011	Italian Language III: AH4	3
ITA 2012	Italian Language IV: AH4	3
JPN 1001	Conversational Japanese I	3
JPN 1011	Japanese Language I	5
JPN 1012	Japanese Language II	5
JPN 2011	Japanese Language III: AH4	3
JPN 2012	Japanese Language IV: AH4	3
LIT 1015	Introduction to Literature I: AH2	3
LIT 1021	Survey of World Mythology	3
LIT 2001	World Literature to 1600: AH2	3
LIT 2002	World Literature after 1600: AH2	3
LIT 2005	Race, Ethnicity, and Culture in U.S. Literature: AH2	3
LIT 2011	American Literature to Civil War: AH2	3
LIT 2012	American Literature after the Civil War: AH2	3
LIT 2021	British Literature to 1770: AH2	3
LIT 2022	British Literature since 1770: AH2	3
LIT 2025	Introduction to Shakespeare: AH2	3
LIT 2035	Science Fiction	3
LIT 2046	Literature of Women: AH2	3
LIT 2048	Native American Literature	3
LIT 2055	Children's Literature: AH2	3
LIT 2057	Literature & Film	3
LIT 2058	Latinx Literature: AH2	3
LIT 2068	Celtic Literature: AH2	3
LIT 2069	Popular Literature & Culture	3
MUS 1000	Music Theory Fundamentals I	3
MUS 1001	Music Theory Fundamentals II	3
MUS 1005	Introduction to Computer Applications	3
MUS 1010	Music Theory I	3
MUS 1011	Music Theory II	3
MUS 1012	Ear Training/Sight-singing I Lab	1
MUS 1013	Ear Training/Sight-singing II Lab	1
MUS 1020	Music Appreciation: AH1	3
MUS 1021	Music History Medieval thru Classical: AH1	3
MUS 1022	Music History Early Romantic Period to the Present: AH1	3
MUS 1023	Survey of World Music: AH1	3
MUS 1025	History of Jazz: AH1	3
MUS 1026	History of Rock & Pop	3
MUS 1031	Music Class I	2
MUS 1032	Music Class II	2
MUS 1033	Music Class III	2
MUS 1034	Music Class IV	2
MUS 1041	Private Instruction	1
MUS 1042	Private Instruction	1
MUS 1043	Private Instruction	1
MUS 1044	Private Instruction	1
MUS 1051	Ensemble I	1
MUS 1052	Ensemble II	1
MUS 1053	Ensemble III	1
MUS 1054	Ensemble IV	1
MUS 1067	Music Business I	3
MUS 2010	Music Theory III	3
MUS 2011	Music Theory IV	3
MUS 2012	Ear Training/Sight-Singing Lab III	1
MUS 2013	Ear Training/Sight-Singing Lab IV	1
MUS 2032	Music Class II	2
MUS 2033	Music Class III	2
MUS 2034	Music Class IV	2
MUS 2041	Private Instruction	2
MUS 2042	Private Instruction	2
MUS 2043	Private Instruction	2
MUS 2044	Private Instruction	2
MUS 2051	Ensemble I	1
MUS 2052	Ensemble II	1
MUS 2053	Ensemble III	1
MUS 2054	Ensemble IV	1
PHI 1011	Introduction to Philosophy: AH3	3
PHI 1012	Ethics: AH3	3
PHI 1013	Logic: AH3	3
PHI 1014	Comparative Religions: AH3	3
PHI 1015	World Religions-West: AH3	3
PHI 1016	World Religions-East: AH3	3
PHI 1042	New Testament: AH3	3
PHI 2001	Social & Political Philosophy	3
PHI 2005	Business Ethics: AH3	3
PHI 2014	Philosophy of Religion: AH3	3
PHI 2018	Environmental Ethics: AH3	3
PHI 2050	Eastern Wisdom	3
PHO 1020	Fundamentals of Photography	3
PHO 2005	Professional Digital Photo I	3
PHO 2026	Digital Workflow Management	3
PHO 2034	View Camera/Lighting Technique	3
RUS 1011	Russian Language I	5
RUS 1012	Russian Language II	5
RUS 2011	Russian Language III: AH4	3
RUS 2012	Russian Language IV: AH4	3
SPA 1001	Conversational Spanish I	3

SPA 1002	Conversational Spanish II	3
SPA 1009	Spanish for Travelers	2
SPA 1011	Spanish Language I	5
SPA 1012	Spanish Language II	5
SPA 1014	Fast-Track Spanish I & II	5
SPA 1015	Spanish for the Professional I	3
SPA 2001	Conversational Spanish III	3
SPA 2002	Conversational Spanish IV	3
SPA 2011	Spanish Language III: AH4	3
SPA 2012	Spanish Language IV: AH4	3
SPA 2015	Spanish for the Professional II	3
SPA 2061	Spanish Language for Heritage & Intermediate-Mid Speakers	3
SPA 2062	Writing for Heritage & Intermediate-Mid Spanish Speakers	3
THE 1004	Basic Costume & Apparel Construction	3
THE 1005	Theatre Appreciation: AH1	5
THE 1011	Acting I	3
THE 1012	Acting II	3
THE 1015	Stage Movement for Actors	3
THE 1016	Technical Theatre	3
THE 1026	Auditioning for Musical Theater	3
THE 1031	Theatre Production I	3
THE 1032	Theatre Production II	3
THE 1035	Stage Makeup I	3
THE 1036	Stage Makeup II	3
THE 1040	Stage Dialects	1
THE 1044	Scene Study	1
THE 1052	Production Stage Management I	3
THE 1083	Internship	1-3
THE 2004	Voice & Articulation I	2
THE 2011	Development of Theatre Greek-Renaissance: AH1	3
THE 2012	Development of Theatre Restoration to Modern: AH1	3
THE 2013	Intermediate Acting I	3
THE 2015	Playwriting: AH1	3
THE 2016	Theatre Lighting & Design	3
THE 2020	Directing I	3
THE 2031	Theatre Production III	3
THE 2032	Theatre Production IV	3
THE 2046	Rehearsal & Performance	1
THE 2047	Rehearsal & Performance II	2
THE 2048	Rehearsal & Performance III	3
THE 2055	Intermediate Playwriting	3

History

HIS 1110	The World: Antiquity–1650: HI1	3
HIS 1120	The World: 1650-Present: HI1	3
HIS 1210	U.S. History to Reconstruction: HI1	3
HIS 1220	U.S. History since the Civil War: HI1	3
HIS 1310	Western Civilization: Antiquity-1650: HI1	3
HIS 1320	Western Civilization: 1650-Present: HI1	3
HIS 2000	History of Science & Technology: HI1	3
HIS 2005	Women in World History: HI1	3
HIS 2015	20th Century World History: HI1	3
HIS 2105	Women in U.S. History: HI1	3
HIS 2110	African American History: HI1	3
HIS 2115	American Indian History: HI1	3
HIS 2125	American Environmental History: HI1	3
HIS 2130	History of the American West: HI1	3
HIS 2135	Colorado History: HI1	3
HIS 2140	Civil War Era in American History: HI1	3
HIS 2145	U.S. History Since 1945: HI1	3
HIS 2200	History of Latin America: HI1	3
HIS 2300	The Middle Ages: HI1	3
HIS 2310	The History of Christianity in the World: HI1	3
HIS 2500	History of Islamic Civilization: HI1	3
HIS 2510	Modern Middle East: HI1	3
HIS 2610	History of Modern China: HI1	3

Mathematics

MAT 1220	Integrated Math I: MA1	3
MAT 1230	Integrated Math II: MA1	3
MAT 1240	Mathematics for the Liberal Arts: MA1	4
MAT 1260	Introduction to Statistics: MA1	3
MAT 1320	Finite Mathematics: MA1	4
MAT 1340	College Algebra: MA1	4
MAT 1400	Survey of Calculus: MA1	4
MAT 1420	College Trigonometry: MA1	3
MAT 1440	Pre-Calculus: MA1	5
MAT 2410	Calculus I: MA1	5
MAT 2420	Calculus II: MA1	5
MAT 2430	Calculus III: MA1	4
MAT 2431	Calculus III with Engineering Applications: MA1	5
MAT 2520	Discrete Mathematics: MA1	4
MAT 2540	Linear Algebra	3
MAT 2560	Differential Equations: MA1	3

Natural and Physical Sciences

AGY 2140	Introductory Soil Science: SC1	4
ANT 1005	Biological Anthropology w/Lab: SC1	4
ANT 2315	Introduction to Forensic Anthropology: SC1	4
AST 1003	Colorado Night Sky III	1
AST 1110	Planetary Astronomy w/Lab: SC1	4
AST 1120	Stellar Astronomy w/Lab: SC1	4
AST 1140	Astronomy of Ancient Cultures: SC2	3
BIO 1003	Principles of Animal Biology: SC2	3
BIO 1004	Biology: A Human Approach: SC1	4
BIO 1005	Science of Biology w/Lab: SC1	4
BIO 1006	Basic Anatomy & Physiology	4
BIO 1048	Basic Ecology	4
BIO 1050	Animal Biology	4
BIO 1111	General College Biology I w/Lab: SC1	5
BIO 1112	General College Biology II w/Lab: SC1	5
BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
BIO 2103	Advanced Human Anatomy	2
BIO 2104	Microbiology w/Lab: SC1	4
BIO 2116	Human Pathophysiology	4
BIO 2121	Botany w/Lab: SC1	5
BIO 2124	Genetics: SC1	4
CHE 1005	Chemistry in Context w/Lab: SC1	5
CHE 1011	Introduction to Chemistry I w/Lab: SC1	5
CHE 1012	Introduction to Chemistry II w/Lab: SC1	5
CHE 1111	General College Chemistry I w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5
CHE 2111	Organic Chemistry I w/Lab	5
CHE 2112	Organic Chemistry II w/Lab	5
CSC 1005	Computer Literacy	3
CSC 1019	Introduction to Programming: Programming Language)	3
CSC 1020	Problem Solving With (Software Package)	3
CSC 1026	Game Design & Development	3
CSC 1060	Computer Science I: (Language)	4
CSC 1061	Computer Science II: (Language)	4
CSC 2020	Introduction to Microsoft Visual Basic. NET	3
CSC 2025	Computer Architecture/Assembly Language Programming	4
CSC 2030	C Programming: Platform	3
CSC 2033	Object-Oriented Programming: (Language)	3
CSC 2036	C# Programming	4
CSC 2040	Java Programming	3
CSC 2046	Mobile App Development :(Platform)	3
CSC 2067	Object-Oriented Analysis & Design	3
ENV 1010	Natural Disasters: SC2	3
ENV 1111	Environmental Science w/Lab: SC1	4
GEO 1011	Physical Geography: Landforms w/Lab: SC1	4
GEO 1012	Physical Geography: Weather, Climate & Ecosystems w/Lab: SC1	4
GEY 1044	Introduction to Cave Science & Karst Science	2

GEY 1108	Geology of U.S. National Parks: SC2	3
GEY 1111	Physical Geology w/Lab: SC1	4
GEY 1112	Historical Geology w/Lab: SC1	4
GEY 1135	Environmental Geology w/Lab: SC1	4
GEY 2205	Geology of Colorado	3
HWE 1019	Skills & Methods of Teaching Fitness Instruction	3
HWE 1050	Human Nutrition	3
HWE 1061	Fitness & Wellness	2
HWE 1062	Health & Fitness	3
HWE 1064	Weight Management & Exercise	2
HWE 1068	Certified Personal Trainer Preparatory Course	3
HWE 2060	Exercise, Nutrition & Body Composition	3
HWE 2064	Health & Wellness Coaching	3
MET 1050	General Meteorology w/Lab: SC1	4
PHY 1105	Conceptual Physics w/Lab: SC1	4
PHY 1111	Physics: Algebra-Based I w/Lab: SC1	5
PHY 1112	Physics: Algebra-Based II w/Lab: SC1	5
PHY 2111	Physics: Calculus-Based I w/Lab: SC1	5
PHY 2112	Physics: Calculus-Based II w/Lab: SC1	5
SCI 1055	Integrated Science I-Physics & Chemistry w/Lab: SC1	4
SCI 1056	Integrated Science II-Earth & Life Sciences w/Lab: SC1	4

Social and Behavioral Sciences

ANT 1001	Cultural Anthropology: SS3	3
ANT 1003	Introduction to Archaeology: SS3	3
ANT 1101	Exploring Other Cultures I	3
ANT 2101	Exploring Other Cultures II	3
ANT 2115	Native Peoples of North America: SS3	3
ANT 2125	Anthropology of Religion: SS3	3
ANT 2130	Sex, Gender & Culture: SS3	3
ANT 2218	Archaeology of the Bible	3
ANT 2317	Human Prehistory	3
ANT 2545	Anthropology of Energy	3
ANT 2550	Medical Anthropology: SS3	3
CRJ 1010	Introduction to Criminal Justice: SS3	3
CRJ 1011	Substantive Criminal Law	3
CRJ 1012	Procedural Criminal Law	3
CRJ 1025	Policing Systems	3
CRJ 1027	Crime Scene Investigation	3
CRJ 1035	Judicial Function	3
CRJ 1045	Correctional Process	3
CRJ 1046	Community Based Corrections	3
CRJ 2005	Principles of Criminal Law	3
CRJ 2009	Criminal Investigation I	3
CRJ 2010	Constitutional Law	3
CRJ 2011	Criminal Investigation II	3
CRJ 2016	Juvenile Law & Procedures	3
CRJ 2020	Human Relations & Social Conflict	3
CRJ 2025	Crisis Intervention	3
CRJ 2030	Criminology	3
CRJ 2031	Introduction to Forensic Science & Criminalistics	3
CRJ 2035	Delinquent Behavior	3
CRJ 2036	Criminal Justice Research Methods	3
CRJ 2045	Interview & Interrogation	3
CRJ 2057	Victimology	3
CRJ 2068	Criminal Profiling	3
ECO 2001	Principles of Macroeconomics: SS1	3
ECO 2002	Principles of Microeconomics: SS1	3
ECO 2045	Environmental Economics: SS1	3
ETH 2024	Introduction to Chicano Studies	3
GEO 1005	World Regional Geography: SS2	3
GEO 1006	Human Geography: SS2	3
JOU 1005	Introduction to Mass Media: SS3	3
PSC 1011	American Government: SS1	3
PSC 1025	American State & Local Government: SS1	3
PSC 1050	Current Political Issues: SS1	3
PSC 2005	International Relations: SS1	3
PSC 2020	Introduction to Political Science: SS1	3

PSC 2025	Comparative Government: SS1	3
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3
PSY 2105	Psychology of Gender: SS3	3
PSY 2107	Human Sexuality: SS3	3
PSY 2221	Social Psychology: SS3	3
PSY 2222	The Psychology of Death & Dying: SS3	3
PSY 2331	Positive Psychology	3
PSY 2332	Psychology of Adjustment	3
PSY 2333	Health Psychology	3
PSY 2440	Human Growth & Development: SS3	3
PSY 2441	Child Development: SS3	3
PSY 2551	Child Abuse & Neglect	3
PSY 2552	Abnormal Psychology: SS3	3
PSY 2771	Psychology of Personality: SS3	3
SOC 1001	Introduction to Sociology I: SS3	3
SOC 1002	Introduction to Sociology II: SS3	3
SOC 2005	Sociology of Family Dynamics: SS3	3
SOC 2007	Environmental Sociology: SS3	3
SOC 2016	Sociology of Gender: SS3	3
SOC 2018	Sociology of Diversity: SS3	3
SOC 2020	Sociology of Religion: SS3	3
SOC 2031	The Sociology of Deviant Behavior: SS3	3
SOC 2037	Sociology of Death & Dying: SS3	3
WST 2000	Introduction to Women's Studies: SS3	3

Written Communication

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2160	Advanced Public Speaking	3
COM 2220	Group Communication: SS3	3
COM 2250	Organizational Communication	3
COM 2300	Intercultural Communication: SS3	3
ENG 1015	Technical English & Communication	3
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
ENG 1031	Technical Writing I: CO1	3
ENG 1032	Technical Writing II	3
ENG 2001	English Composition III: CO3	3
ENG 2005	Technical Editing	3
ENG 2021	Creative Writing I: AH1	3
ENG 2022	Creative Writing II	3
ENG 2026	Fiction Writing	3
ENG 2027	Poetry Writing	3
ENG 2030	Creative Nonfiction	3
ENG 2031	Literary Magazine	3
ENG 2035	Rhetoric & Propaganda	3
HIS 2765	Writing About History: CO3	3
JOU 1005	Introduction to Mass Media: SS3	3
JOU 1006	Media News & Reporting	3
JOU 1021	Photojournalism	3
JOU 2006	Intermediate Newswriting & Editing	3
JOU 2015	Publications Production & Design	3
JOU 2021	Newspaper Design I	3
JOU 2025	New Media	3
JOU 2031	Introduction to Public Relations	3
JOU 2041	Feature & Magazine Writing	3

Other Approved Electives

AAA 1001	College 101: Student Experience	3
AAA 1009	Advanced Academic Achievement	3
ACC 1021	Accounting Principles I	4
ACC 1022	Accounting Principles II	4
ACC 2011	Intermediate Accounting I	4
ACC 2012	Intermediate Accounting II	4
ACC 2016	Governmental & Not-for-Profit Accounting	3
ACC 2026	Cost Accounting	3
ACC 2087	Cooperative Education	3
BUS 1015	Introduction to Business	3
BUS 2003	Introduction to International Business	3

BUS 2016	Legal Environment of Business	3
BUS 2017	Business Communication & Report Writing	3
BUS 2026	Business Statistics	3
CIS 1004	Word Processing with Assistive Technology	3
CIS 1010	Introduction to Computing Technology: (Device)	1
CIS 1015	Introduction to Computer Information Systems	3
CIS 1018	Introduction to PC Applications	3
CIS 1024	Introduction to Operating Systems	3
CIS 1028	Operating System: Using____	3
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 2067	Management of Information Systems	3
CIS 2089	Capstone	3
ECE 1011	Introduction to Early Childhood Education	3
ECE 1031	Guidance Strategies for Young Children	3
ECE 1045	Introduction to Early Childhood Education Techniques	3
ECE 1911	School Age Theory & Practice	3
ECE 1925	School Age Lab Techniques	3
ECE 2051	Nutrition, Health & Safety	3
ECE 2061	Observation & Assessment of Young Children's Development, Learning, & Programs	1
ECE 2079	Seminar	1-6
ECE 2089	Capstone: Early Childhood Education	5
ECE 2101	Working with Families & Communities	3
ECE 2371	Theories & Techniques of Social & Emotional Growth	3
ECE 2381	ECE Child Growth & Development	3
ECE 2411	Administration: Human Relations for Early Childhood Education	3
ECE 2601	The Exceptional Child	3
ECE 2615	Exceptional Child Lab Techniques	3
ECE 2621	Curriculum Development: Methods & Techniques	3
ECE 2631	Language & Cognition for the Young Child	3
ECE 2641	Creativity & the Young Child	3
ECE 2661	Science/Math & the Young Child	3
EDU 2211	Introduction to Education	3
EDU 2341	Multicultural Education	3
EDU 2611	Teaching, Learning & Technology	3
EDU 2631	Teaching & Learning Online	3
EGG 1020	Engineering Methodologies	3
EGG 2020	Thermodynamics	3
EGG 2050	Engineering Economics	3
EGT 2303	Applied Dimension & Tolerance	3
EGT 2305	Geometric Dimension & Tolerance	3
EMS 1021	EMT Fundamentals	3
ENP 1005	Introduction to Entrepreneurship	3
FIN 2010	Principles of Finance	3
HWE 1005	American Heart Association Heartsaver First Aid CPR and AED	0.5
HWE 1061	Fitness & Wellness	2
HWE 1062	Health & Fitness	3
HWE 1065	Introduction to Exercise Health Sciences	3
HWE 2060	Exercise, Nutrition & Body Composition	3
HWE 2063	Exercise Testing Prescription	3
MAN 2000	Human Resource Management I	3
MAN 2016	Small Business Management	3
MAN 2026	Principles of Management	3
MAN 2046	Critical Issues in Marketing & Management	3
MAR 2016	Principles of Marketing	3
MAR 2020	Principles of Advertising	3
MAR 2040	International Marketing	3
MAR 2049	Strategic Marketing	3
MGD 1007	History of Design	2
MGD 1064	Digital Video Editing I	3
NRE 2014	Environmental Issues & Ethics	3
PED 1002	Weight Training I	1
PED 1003	Weight Training II	2
PED 1010	Fitness Center Activity I	1
PED 1011	Fitness Center Activity II	1

PED 1012	Fitness Center Activity III	1
PED 1013	Fitness Center Activity IV	1
PED 1022	Step Aerobics	1
PED 1026	Cardio Kickboxing Aerobic I	1
PED 1029	Zumba	1
PED 1040	Body Sculpturing & Toning	1
PED 1041	Pilates Matwork I	1
PED 1042	Pilates Matwork II	1
PED 1043	Yoga I	1
PED 1044	Yoga II	1
PED 1051	Walking & Jogging	1
PED 1061	Tai Chi I	1
PED 1062	Tai Chi II	1
PED 1063	Martial Arts I	1
PED 1064	Martial Arts II	1
PED 2030	Volleyball I	1
PED 2031	Volleyball II	1
REC 1000	Introduction to Recreation	2
RTV 1000	Introduction to Electronic Media	3
RTV 2002	Advanced Television Production	3

Associate of Arts Degrees and Courses of Study

Anthropology

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy for MAT 1260
- College Readiness for Algebra for MAT 1340

Anthropology imparts a global, comparative, and historical (evolutionary) approach to human studies. Its subject is cultural diversity and biological variation among humans both contemporary and ancient. It seeks to answer who we are, where we come from, what is learned, and what is instinctual. Anthropology is divided into two major categories: cultural and physical. Cultural anthropology tests the accuracy of beliefs about human behavior. Physical anthropology seeks accuracy of beliefs about human biological nature and development. Specializations in anthropology include archeology, linguistics, cultural resource management, forensics, paleontology, medical anthropology, and counseling among others. In any professional career, it is increasingly important to have a concrete understanding of human behavior in a cultural context. Anthropology offers that understanding.

Program Learning Outcomes

Upon completion of the Anthropology degree program, students should be able to:

- Define and recall key aspects of all four sub-disciplines of Anthropology
- Recognize and describe the main characteristics of culture
- Discuss the most important cultural processes at work in each society
- Analyze the evolutionary process of sociocultural change
- Use methodological processes and terminology appropriate to the field of Anthropology
- Apply an anthropological perspective to real life situations
- Examine diversity and global processes and how they relate and contribute to the understanding of humanity
- Locate and synthesize relevant information

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three-four (3-4) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1260, except:
  - University of Colorado, Denver requires either MAT 1260 or MAT 1340
  - Western State Colorado University requires MAT 1340

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Eight (8) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1)

Additional Required Courses
Twenty-two (22) credit hours. Full list of requirements can be found on page 53.

ANT 1001	Cultural Anthropology: SS3	3
ANT 1003	Introduction to Archaeology: SS3	3
ANT 1005	Biological Anthropology w/Lab: SC1	4
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
COM 2300	Intercultural Communication: SS3	(3)
One (1) GT Pathways Arts and Humanities course (AH1, AH2, AH3, AH4)		3
One (1) GT Pathways ANT course in Social and Behavioral Sciences (SS3)		3
One (1) GT Pathways Social and Behavioral Sciences (SS2 or SS3)		3

Electives
Five-six (5-6) credit hours selected from the AA approved course list can be found on page 54.

Suggested Courses

ANT 1001	Cultural Anthropology: SS3	3
ANT 1003	Introduction to Archaeology: SS3	3
ANT 1005	Biological Anthropology w/Lab: SC1	4
ANT 1101	Exploring Other Cultures I	3
ANT 2101	Exploring Other Cultures II	3
ANT 2115	Native Peoples of North America: SS3	3
ANT 2218	Archaeology of the Bible	3
ECO 2001	Principles of Macroeconomics: SS1	3
GEO 1005	World Regional Geography: SS2	3
PSC 2020	Introduction to Political Science: SS1	3
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3
SOC 1001	Introduction to Sociology I: SS3	3
SOC 1002	Introduction to Sociology II: SS3	3
Total Credit Hours		**60**

Additional information available on the Anthropology Department website at www.pikespeak.edu/programs/anthropology.

Art - Art History

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Art History is the study of human expression through an examination of the history and development of painting, sculpture, architecture, ceramics, furniture, and other decorative objects. Art Historians translate from the visual to the verbal, through analysis and interpretation, using a number of different approaches and methodologies. The Associate of Arts (AA) degree with designation in Art History includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year institution in pursuit of a Bachelor of Arts (BA) degree or a Bachelor of Fine Arts (BFA) degree in Art or Art History. With a degree in Art History you may be employed in one of the following career areas: museum and gallery management, media, research, arts administration, journalism, arts education, exhibition and events coordination or antiques dealer.

Program Learning Outcomes

Upon completion of the Art - Art History degree program, students should be able to:

- Accurately place a piece of art within its proper context in time and significance
- Write an MLA formatted scholarly research paper and discuss various artistic trends and periods
- Analyze various media, techniques, and individual artists both traditional and contemporary

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1) prefer MAT 1240

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

  EXCEPT the courses listed in the Additional Required Courses section below

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Seven or eight (7 or 8) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1). One of these courses must have the required Laboratory (GT-SC1)

Additional Required Courses
Eighteen (18) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

ART 1002	Visual Concepts 2-D Design	3
ART 1003	3-D Design	3
ART 1111	Art History Ancient to Medieval: AH1	3
ART 1112	Art History Renaissance to 1900: AH1	3
ART 1113	Art History 1900 to Present: AH1	3
ART 1201	Drawing I	3

Electives
Ten-eleven (10-11) credit hours selected from the AA approved course list on page 54.

Total Credit Hours	**60**

Students planning to transfer to CSU-FC will be required to complete a 2000-level world language for completion of the BA in Art – Art History. Students will be expected to be prepared upon completion of the associate's degree to take an intermediate world language or be able to pass the CSU-FC World Language placement exam at the sophomore level. It may not be possible to complete the BA in Art – Art History concentration in two years without this prior world language competency.

Additional information available on the Art - Art History Department website at www.pikespeak.edu /programs/art.

Art - Studio Art

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Studio Art is the study of how to create art, the development of an understanding about how art is made and finding your place in society. As a student in Studio Art you may take courses in color theory, ceramics, drawing, painting, printmaking, sculpture, jewelry, two-dimensional design and three-dimensional design. The Associate of Arts (AA) degree with designation in Studio Art includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year institution in pursuit of a Bachelor of Arts (BA) degree or a Bachelor of Fine Arts (BFA) degree in Studio Art. With a degree in Studio Art you may be employed in one of the following career areas: studio artist, arts councils, newspaper or publishing houses, advertising agencies, film and motion picture production, art restoration, commercial art, art therapy, art education, art museums and galleries or gallery curator.

Program Learning Outcomes

Upon completion of the Art - Studio Art degree program, students should be able to:

- Adequately utilize media such as paint, clay, and pencils
- Produce artwork that follows standards and guidelines
- Identify and describe the Visual Elements and Principles of Design

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses (AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Seven (7) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1). One of these must have the required Lab (GT-SC1).

Additional Required Courses
Twenty-one (21) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

ART 1002	Visual Concepts 2-D Design	3
ART 1003	3-D Design	3
ART 1111	Art History Ancient to Medieval: AH1	3
ART 1112	Art History Renaissance to 1900: AH1	3
ART 1201	Drawing I	3
ART 1202	Drawing II	3
or		
ART 1203	Figure Drawing I	(3)
	Studio Art course	3

Electives
Eight (8) credit hours selected from the AA approved course list on page 54.

Total Credit Hours 60

Additional information available on the Art - Studio Art Department website at www.pikespeak.edu/programs/art.

Business

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

The Associate of Arts Business option is the result of a statewide articulation agreement between the Colorado Community College System and the four-year colleges and universities. Students completing the following 60 hours will transfer in 100 percent of their classes and start as an entering junior at the four-year school. Please consult with your faculty advisor for the proper sequence of classes.

Program Learning Outcomes

Upon completion of the Business degree program, students should be able to:

- Analyze contemporary business concepts
- Apply comprehension of business terminology in deliverables
- Compare different economic philosophies
- Perform library research, analytical, and business writing/oral communication skills

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Four (4) credit hours

MAT 1320	Finite Mathematics: MA1	4
or		
MAT 1340	College Algebra: MA1	(4)
or		
MAT 1400	Survey of Calculus: MA1	(4)

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.

PHI 2005	Business Ethics AH3	3
GT – One GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)		3

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours GT Pathways Social and Behavioral Sciences courses

ECO 2001	Principles of Macroeconomics: SS1	3
ECO 2002	Principles of Microeconomics: SS1	3

Natural and Physical Sciences
Seven (7) credit hours. Full list of requirements can be found on page 53.

GT – Two GT Pathways Natural and Physical Sciences courses (SC1), one must be with laboratory   7

Additional Required Courses
Twenty-three (23) credit hours

ACC 1011	Introduction to Financial Accounting	3
Or		
ACC 1021	Accounting Principles I	(4)
ACC 1012	Introduction to Managerial Accounting	
or		
ACC 1022	Accounting Principles II	(4)
BUS 1015	Introduction to Business	3
BUS 2016	Legal Environment of Business	3
BUS 2017	Business Communication & Report Writing	3
BUS 2026	Business Statistics	3
COM 1150	Public Speaking	3

Electives
Five to seven (5-7) credit hours selected from the AA approved course list on page 54.

Total Credit Hours	**60**

Additional information available on the Business Department website at www.pikespeak.edu/programs/business/business-program-options.

Communication

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

If you are a person with multiple interests and diverse talents, then Communication may be the major for you! The program of study provides rhetorical and social scientific theory, tools, and techniques for analyzing, managing, and improving communication in every arena of professional and personal interaction. Topics within the discipline may include public speaking, interpersonal and group communication, intercultural and organizational communication. The Associate of Arts (AA) degree with designation in Communication includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA) degree in Communication. With a degree in Communication, you have employment opportunity in a variety of fields including public relations, political science, advertising, social services, journalism, education, film production and criticism, radio/television, event planning, sales, grant or technical writing, customer service, corporate communication, employee training, personal management, entertainment, social media, education, and foreign relations.

Program Learning Outcomes

Upon completion of the Communication degree program, students should be able to:

- Develop a central message using the content and supporting materials
- Incorporate language that is appropriate to the audience
- Demonstrate performance skills to share content with a particular audience for a specific occasion and purpose
- Implement an organization pattern that results in a cohesive presentation
- Employ language that enhances the presentation

- Make reference to and connect information through analysis that supports the presentation while establishing the presenter's credibility/authority on the topic
- Incorporate a variety of types of supporting material
- Manage visual aids with appropriate technology

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.

COM 2300	Intercultural Communication: SS3	3
GT - One GT Pathways Social and Behavioral Sciences course (SS1, SS2, SS3)		3

Natural and Physical Sciences
Seven (7) credit hours. Full list of requirements can be found on page 53.

GT - Two GT Pathways Natural and Physical Sciences courses (SC1, SC2). One of these courses must have the required laboratory (SC1).

Additional Required Courses
Eighteen (18) credit hours. Full list of requirements can be found on page 53.
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2220	Group Communication: SS3	3
One (1) COM course		3
Two (2) GT Pathways courses from History (HI1) or Social and Behavioral Sciences (SS1, SS2, SS3)		6

Electives
Eleven (11) credit hours selected from the AA approved course list can be found on page 54.

Please note: Additional COM courses beyond the 4 courses (12 credit hours) identified above in the Additional Required Courses section may not count toward the Communication major at the receiving four-year institution.

Total Credit Hours   **60**

Additional information available on the Communication Department website at www.pikespeak.edu/programs/communication.

Criminal Justice

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy for MAT 1240 or MAT 1260
- College Readiness for Algebra for MAT 1340

The Associate of Arts in Criminal Justice is designed for students intending to transfer to a four-year school and pursue a bachelor's degree in Criminal Justice. The Statewide Transfer Agreement will allow students to transfer to a Colorado public four-year school and complete their degree with an additional 60 credit hours.

Courses marked with an asterisk [*] are not currently offered at PPSC.

Program Learning Outcomes

Upon completion of the Criminal Justice degree program, students should be able to:

- Explain the origins of criminal behavior, society's response to crime, and the consequences of crime to our society, utilizing multiple perspectives
- Explain social injustices and social harms within criminal justice systems
- Compare theoretical frameworks to the causes and prevention of crime, the processes of criminalization, and the impact that crime has on society
- Discuss the relationships between the courtroom and its procedures, the criminal law, and issues of criminal procedure (due process vs. crime control)
- Document police-related activities through effective report writing
- Differentiate and explain the key roles in the core criminal justice areas (law enforcement, law and corrections)

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three-four (3-4) credit hours
- GT - One GT Pathways course (GT-MA1) prefer MAT 1260, except:
  - University of Colorado, Colorado Springs prefers MAT 1240
  - Colorado Mesa University requires either MAT 1240 or MAT 1340
  - University of Northern Colorado requires MAT 1260

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses from two different categories (AH1, AH2, AH3, AH4)

History
Three (3) credit hours
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.

SOC 1001	Introduction to Sociology I: SS3	3
AND		

- GT - One GT Pathways Social and Behavioral Sciences course (SS3)

Natural and Physical Sciences
Seven-eight (7-8) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1). One of these courses must have the required Laboratory (GT-SC1)

Additional Required Courses
Twenty-seven (27) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
CRJ 1010	Introduction to Criminal Justice: SS3	3
CRJ 1025	Policing Systems	3
CRJ 1045	Correctional Process	3

Choose two (2) courses from the following

CRJ 1027	Crime Scene Investigation	3
CRJ 1035	Judicial Function	3
CRJ 2005	Principles of Criminal Law	3
CRJ 2009	Criminal Investigation I	3
CRJ 2030	Criminology	3
CRJ 2031	Introduction to Forensic Science & Criminalistics	3
CRJ 2035	Delinquent Behavior	3
CRJ 2036	Criminal Justice Research Methods	3
CRJ 2057	Victimology	3
CRJ 2068	Criminal Profiling	3

Choose three (3) courses from the following

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 2058*	Computer Forensics	3
COM 2220	Group Communication: SS3	3
COM 2250	Organizational Communication	3
PSC 1011	American Government: SS1	3
PSC 1025	American State & Local Government: SS1	3
PSY 2107	Human Sexuality: SS3	3
PSY 2221	Social Psychology: SS3	3
PSY 2552	Abnormal Psychology: SS3	3
PSY 2770*	Introduction to Forensic Psychology	3
SOC 2031	The Sociology of Deviant Behavior: SS3	3

Electives

Zero-two (0-2) credit hours selected from the AA approved course list can be found on page 54.

Total Credit Hours	**60**

Additional information available on the Criminal Justice Department website at www.pikespeak.edu/programs/criminal-justice.

Dance

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Dance program strives to help you develop, strengthen, and further advance your technique in a variety of different dance genres, as well as develop critical thinking skills through creative and scholarly processes. Dance is a unique professional field unlike any other that demands dedication, drive and determination. The dance profession requires you to be physically and emotionally strong, flexible, creative, and eager. The Associate of Arts course of study in Dance includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA) degree in Dance. With an Associate of Arts course of study in Dance you will be able to teach dance at studios or in schools, audition for professional companies, create and produce your own work and/or transfer to a four-year institution to major in dance.

Program Learning Outcomes

Upon completion of the Dance degree program, students should be able to:

- Exhibit a sound foundation of technical & performance skills
- Apply, through embodiment and words, correct anatomy, proper alignment, and placement
- Identify, describe, and demonstrate through the generating of movement, the basic elements of dance: time, space, and energy
- Articulate aesthetic concerns in dance including the analysis of choreography, live and/or film, through speaking and writing
- Discuss the historical, aesthetic, and social concerns of Western & Non-Western Dance forms

Written Communication

Six (6) credit hours. Any (GT-CO1) course plus any (GT-CO2) course **OR** Any (GT-CO2) course plus any (GT-CO3) course.

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
	OR	
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
	or	
HIS 2765	Writing About History: CO3	(3)

Mathematics

Three (3) credit hours. One GT Pathways Mathematics course (GT-MA1).

Suggested Course

MAT 1240	Mathematics for the Liberal Arts: MA1	4

Arts and Humanities

Six (6) credit hours. Full list of requirements can be found on page 53.

DAN 1050	Dance History: AH1	3
One additional GT-AH course (can be AH1, AH2, AH3, or AH4, but cannot be a DAN course)		3

History

Three (3) credit hours. One GT Pathways History course (HI1)

Social and Behavioral Sciences

Six (6) credit hours. Two GT Pathways Social & Behavioral Sciences courses (GT-SS1, GT-SS2, GT-SS3).

Suggested Course

COM 2300	Intercultural Communication	3

Natural and Physical Sciences

Seven (7) credit houFrs. Two GT Pathways Natural & Physical Science courses (GT-SC1, GT-SC2); one of these courses must have the required laboratory (GT-SC1). Full list of requirements can be found on page 53.

Additional Required Courses

DAN 2011	Dance Composition & Improvisation I	3
DAN 2012	Dance Composition & Improvisation II	2
DAN 2021	Dance Performance I	2
DAN 2022	Dance Performance II	2
DAN 2054	Methods for Teaching Dance	2
DAN 2055	Dance for Camera	2
Dance technique courses in at least three different styles		10

Electives

Six (6) credit hours selected from the AA approved course list, cannot be DAN courses.

Total Credit Hours	**60**

Additional information available on the Dance Department website at www.pikespeak.edu/programs/dance.

Early Childhood Education Teacher Preparation

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Associate of Arts Early Childhood [Teacher] Education option is the result of a Statewide articulation agreement between the Colorado Community College System and the four-year colleges and universities. Students completing the following 60 hours will transfer in 100% of their classes and start as an entering junior at the following four-year schools: Adams State, Colorado Mesa University, Colorado State University-Ft. Collins, Fort Lewis College, Metropolitan State University, University of Colorado-Denver, and University of Northern Colorado. Please consult with your faculty advisor for the proper sequence of classes.

All students registered for ECE classes, both lecture-based and practicum-based courses, must submit to a criminal background check the first semester of enrollment. This process is completed on-line through the PPSC Human Resources Department, with an associated cost for the background check service. Further instructions are available on the ECE home page and will be provided the first day of class.

Program Learning Outcomes

Upon completion of the Early Childhood Education Teacher Preparation degree program, students should be able to:

- Apply their knowledge of child development and learning to their teaching practices
- Develop family and community relationships
- Observe, document, and assess young children to make informed decisions
- Apply developmentally effective approaches to connect with children and families
- Use content knowledge to build meaningful curriculum
- Define and demonstrate being an early childhood professional

Written Communication
Six (6) credit hours
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3

Mathematics
Four (4) credit hours
MAT 1240	Mathematics for the Liberal Arts: MA1	4

Arts and Humanities
Six (6) credit hours
ART 1110	Art Appreciation: AH1	3
MUS 1020	Music Appreciation: AH1	3
THE 1005	Theatre Appreciation: AH1	3
and		
LIT 1015	Introduction to Literature I: AH2	3
or		
LIT 2055	Children's Literature: AH2	(3)

History
Three (3) credit hours
HIS 1210	U.S. History to Reconstruction: HI1	3
HIS 1220	U.S. History since Civil War: HI1	3

Social and Behavioral Sciences
Six (6) credit hours
GEO 1005	World Regional Geography: SS2	3
PSY 1001	General Psychology: SS1	3

Natural and Physical Sciences
Eight (8) credit hours
SCI 1055	Integrated Science I-Physics & Chemistry w/Lab: SC1	4
SCI 1056	Integrated Science II-Earth & Life Sciences w/Lab: SC1	4

Students must pass with a C or higher BOTH SCI 1055 and SCI 1056 to satisfy the GT Pathways Natural and Physical Science requirement.

Additional Required Courses
Nineteen (19) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.
ECE 1011	Introduction to Early Childhood Education	3
ECE 1031	Guidance Strategies for Young Children	3
ECE 1045	Introduction to Early Childhood Education Techniques	3
ECE 2101	Working with Families & Communities	3
ECE 2381	ECE Child Growth & Development	3
ECE 2621	Curriculum Development: Methods & Techniques	3

Electives
Nine (9) credit hours to be determined by home and transfer institution.

Total Credit Hours	**60-61**

Additional information available on the Early Childhood Education Department website at www.pikespeak.edu/programs/early-childhood-education/ece-program-options.

Economics

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
       or
- MAT 1340 and MAT 1440

The Associate of Arts in Economics is designed for students intending to transfer to a four-year school and pursue a bachelor's degree in Economics. The Statewide Transfer Agreement will allow students to transfer to a Colorado public four-year school and complete their degree with an additional 60 credit hours.

Program Learning Outcomes

Upon completion of the Economics degree program, students should be able to:

- Locate economic data relevant to a specific problem
- Analyze economic data to reach conclusions
- Identify and apply principles of economics to real-world events
- Offer alternative solutions to economic problems
- Connect knowledge to civic engagement

Written Communication
Six (6) credit hours
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3

Mathematics
Five (5) credit hours
MAT 2410	Calculus I: MA1	5

Arts and Humanities
Nine (9) credit hours. Full list of requirements can be found on page 53.
- GT - Three GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours
ECO 2001	Principles of Macroeconomics: SS1	3
ECO 2002	Principles of Microeconomics: SS1	3

Natural and Physical Sciences
Eight (8) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1)

Additional Required Course
Three (3) credit hours

MAT 1260	Introduction to Statistics: MA1	3

Electives
Twenty (20) credit hours selected from the AA approved course list can be found on page 54.

Total Credit Hours	**60**

Additional information available on the Economics Department website at www.pikespeak.edu/programs/economics.

Elementary Education Teacher Preparation

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Elementary Education Teacher Preparation allows students to complete a transferable associate of arts degree preparing them for transfer to a four-year college or university in Colorado where they can complete their bachelor's degree and teaching credential in two additional years. Students identify a major and transfer institution prior to enrolling for courses and must meet with their faculty advisor before registering for classes to insure transferability of courses to their chosen institution/major.

Program Learning Outcomes

Upon completion of the Elementary Education Teacher Preparation degree program, students should be able to:

- Discuss the historical, social, political, philosophical, cultural, and economic forces that shape the United States public school system
- Compare and contrast teaching strategies and approaches appropriate to students of diverse needs, abilities, and backgrounds
- Define and establish goals for their own teaching careers

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3

Note: Some educator preparation programs require a B- in ENG 1021 as an admission requirement. However, a C- or better meets the general education GT-CO1 requirement.

Mathematics
Six (6) credit hours

MAT 1220	Integrated Math I: MA1	3
MAT 1230	Integrated Math II: MA1	3

Arts and Humanities
Six (6) credit hours

LIT 2055	Children's Literature: AH2	3
One additional GT Pathways AH2 course		3

History
Three (3) credit hours

HIS 1210	U.S. History to Reconstruction: HI1	3
or		
HIS 1220	U.S. History Since the Civil War: HI1	(3)

Social and Behavioral Sciences
Six (6) credit hours

GEO 1005	World Regional Geography: SS2	3
or		
GEO 1006	Human Geography: SS2	(3)
PSC 1011	American Government: SS1	3

Natural and Physical Sciences
Eight (8) credit hours

SCI 1055	Integrated Science I-Physics & Chemistry w/Lab: SC1	4
SCI 1056	Integrated Science II-Earth & Life Sciences w/Lab: SC1	4

Students must pass with a C- or higher BOTH SCI 1055 and SCI 1056 to satisfy the GT Pathways science requirement.

Additional Requirements
Sixteen (16) credit hours

Arts and Humanities
Three (3) credit hours

ART 1110	Art Appreciation: AH1	3
or		
DAN 1025	Dance Appreciation: AH1	(3)
or		
MUS 1020	Music Appreciation: AH1	(3)
or		
THE 1005	Theatre Appreciation: AH1	(3)

Social and Behavioral Sciences
Three (3) credit hours

PSY 2441	Child Development: SS3	3

Field of Study
Ten (10) credit hours

EDU 2088	Practicum II	1
or	Any other one-credit course	(1)
EDU 2211	Introduction to Education	3
EDU 2341	Multicultural Education	3
EDU 2611	Teaching, Learning, & Technology	3

Electives
Nine (9) credit hours to be determined by receiving four-year institution. Contact an academic advisor for recommendations concerning elective courses.

Total Credit Hours	**60**

Additional information available on the Education Department website at www.pikespeak.edu/programs/education/education-program-options.

English

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

To major in English in the new millennium is to do more than select a profession; it is to identify one's vocation. Whether students decide someday to specialize in rhetoric and composition, literary criticism, or creative writing, or to become journalists, songwriters, screenwriters, or teachers of English, they will learn to promote literacy and thoughtful dissent in contemporary society. They will learn that connections between life and literature are basic to living in and understanding a complex global community.

English majors interested in education, literature, or professional writing should contact their four-year transfer institution for recommendations concerning elective courses. Students can

select an English AA Degree with Designation in Literature, or an English AA course of study in Professional Writing & Communication or a combination of both.

Courses marked with an asterisk [*] are not currently offered at PPSC.

Program Learning Outcomes

Upon completion of the English degree program, students should be able to:

- Create and develop ideas within the context of the situation and the assigned task(s)
- Critically read, evaluate, apply, and synthesize evidence and/or sources in support of a claim
- Follow an appropriate documentation system
- Evaluate the relevance of context when presenting a position and identify assumptions
- Establish a conclusion that is tied to the range of information presented
- Reflect on implications and consequences of stated conclusion

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1) prefer MAT 1240

Arts and Humanities
Nine (9) credit hours. Full list of requirements can be found on page 53.
- GT - Three GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

Note: GT-AH2 Literature (LIT) courses will not be accepted to fulfill this requirement.

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Seven (7) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1). One must be with laboratory (GT-SC1).

Additional Required Courses
Eighteen (18) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
COM 2250	Organizational Communication	(3)

Five GT Pathways Arts & Humanities Literature (LIT) courses within the GT- AH2 category. 15
At least four of the five LIT courses must be at the 2000-level.

Please consult with your receiving institution regarding best choices for literature courses.

Electives
Eight (8) credit hours selected from the AA approved course list can be found on page 54.
Recommended Courses

ENG 2021	Creative Writing I: AH1	3
ENG 2022	Creative Writing II	3
ENG 2030	Creative Nonfiction	3
HUM 1003	Introduction to Film Art: AH2	3
HUM 1015	World Mythology: AH2	3
HUM 1021	Early Civilization: AH2	3
HUM 1022	Medieval - Modern: AH2	3
HUM 1023	Modern World: AH2	3
Total Credit Hours		**60**

Additional information available on the English Department website at www.pikespeak.edu/programs/english.

Environmental Sustainability Studies

Associate of Arts Course of Study

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This interdisciplinary program studies the interconnections between social, economic, and environmental systems. The program seeks to understand the complex interactions and relationships humans have with the natural world. Students develop critical and systems thinking skills to analyze real-world problems and evaluate sustainable solutions. The program provides students with opportunities to learn in the field, engage with industry leaders, and work on real-world projects.

The curriculum in this program is designed to prepare students to transfer to a baccalaureate institution and complete a four-year degree in an environmental or sustainability related field of study. This program prepares students for a wide variety of careers, including conservation scientists, sustainability specialists, environmental planners, industrial ecologists, and compliance managers. While a baccalaureate or higher degree is recommended for those considering professional careers related to this field, earning the Associate degree will demonstrate achievement and support pursuit of entry-level employment.

Program Learning Outcomes

Upon completion of the Environmental Sustainability Studies degree program, students should be able to:

- Evaluate the relevance of context when presenting a position and identify assumptions

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems in a given discipline
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings
- Demonstrate how their own attitudes, behaviors, or beliefs compare or relate to those of other individuals, groups, communities, or cultures
- Examine diverse perspectives when investigating social and behavioral topics within natural or human systems
- Make connections between the world-views, power structures, and experiences of individuals, groups, communities, or cultures, in historical or contemporary contexts

Written Communication
Six (6) credit hours. Two GT Pathways English courses (CO1, CO2, CO3)

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)

Oral Communication
Three (3) credit hours

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3

Mathematics
Three to four (3-4) credit hours. One GT Pathways course (GT-MA1)

MAT 1240	Mathematics for the Liberal Arts: MA1	4
or		
MAT 1260	Introduction to Statistics: MA1	(3)
or		
MAT 1340	College Algebra: MA1	(4)

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
Two GT Pathways Arts and Humanities (AH1, AH2, AH3, AH4).

Required Course

PHI 2018	Environmental Ethics: AH3	3

Suggested Course

PHI 2005	Business Ethics: AH3	3

History
Three (3) credit hours GT Pathways History course (HI1)

Suggested Courses

HIS 2000	History of Science & Technology: HI1	3
HIS 2115	American Indian History: HI1	3
HIS 2125	American Environmental History: HI1	3
HIS 2135	Colorado History: HI1	3

Social and Behavioral Sciences
Nine (9) credit hours. Three (3) GT Pathways Social and Behavioral Science courses (SS1, SS2, SS3)

Required Courses

ECO 2045	Environmental Economics: SS1	3
SOC 2007	Environmental Sociology: SS3	3

One additional required GT Pathways course from Social and Behavioral Sciences (SS1, SS2, SS3)

ANT 1001	Cultural Anthropology: SS3	3
ANT 2115	Native Peoples of North America: SS3	3
GEO 1005	World Regional Geography: SS2	3
GEO 1006	Human Geography: SS2	3
PSC 1025	American State & Local Government: SS1	3
PSC 1050	Current Political Issues: SS1	3

Natural and Physical Sciences
Eight (8) credit hours. Two (2) GT Pathways Natural and Physical Sciences courses (SC1, SC2), with two lab courses (SC1).

Required Courses

ENV 1111	Environmental Science w/Lab: SC1	4
GEO 1012	Physical Geography – Weather and Climate w/Lab: SC1	4

Additional Required Courses
Nine to thirteen (9-13) credit hours GT Pathways courses (SC1, SC2)

GEY 1108	Geology of U.S. National Parks: SC2	3
GEY 1111	Physical Geology w/Lab: SC1	4
GEY 1135	Environmental Geology w/Lab: SC1	4
GEY 1155	General Oceanography w/Lab: SC1	4
AND		

Select one of the following

ENV 1010	Natural Disasters: SC2	3
GEO 1011	Physical Geography: Landforms w/Lab: SC1	4
MET 1050	General Meteorology w/Lab: SC1	4
PHY 1105	Conceptual Physics w/Lab: SC1	4
SCI 1055	Integrated Science I-Physics & Chemistry w/Lab: SC1	4
SCI 1056	Integrated Science II-Earth and Life Sciences w/Lab: SC1	4
AND		

Select one of the following

BIO 1003	Principles of Animal Biology: SC2	4
BIO 1005	Science of Biology w/Lab: SC1	4
BIO 1111	General College Biology I w/Lab: SC1	5
BIO 1112	General College Biology II w/Lab: SC1	5
CHE 1005	Chemistry in Context w/Lab: SC1	5
CHE 1111	General College Chemistry I w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5

Electives
Other Suggested GT-Elective Courses
Eight to thirteen (8-13) credit hours

Any additional courses in the following areas: BIO, GEO, GEY listed above in the additional required area OR from the prefixes of ANT, ART, CHE, COM, ENG, ENV, HIS, JOU, LIT, PHY, POS, or SUS

Total Credit Hours   **60**

French

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

PPSC's world language programs are built around the standards put forth by The American Council on the Teaching of World Languages (ACTFL). ACTFL establishes a framework guiding the standards of world language study. When you study French, you will communicate with others in French, both in and out of the classroom. You will learn about and experience other cultures, make connections between your target language and other disciplines, make comparisons between your native culture/language and the target language and culture; and become active in communities of the language you are learning. The AA degree with designation in French includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA degree) in French or any other discipline. An AA degree with designation in French may be a good beginning to any four-year degree as it is a valuable enhancement to any bachelor's degree program. All four-year universities in Colorado now have a minimum world language requirement as part of admission. World language study is compatible with all other disciplines, especially law enforcement, health professions, education, social and behavioral sciences, business, journalism, and art history.

Students considering a major in a world language should be aware that first-year language courses do not count toward credit-hour requirements for a major or minor in most four-year institutions.

Students may follow the degree with designation in French or transfer guide in French to a particular four-year college/university. Consult your Faculty Advisor to assist you in determining the best pathway for you. Please note that the degree tracks in French for the Professions and French with Secondary Teaching Licensure have different requirements and are not included in this agreement.

Program Learning Outcomes

Upon completion of the French degree program, students should be able to:

- Develop a central message
- Employ language that enhances the presentation
- Incorporate language that is appropriate to the audience
- Demonstrate performance skills, (posture, gesture, eye contact, and vocal expressiveness) to share content with or present to a particular audience for a specific occasion and purpose (execute delivery)

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities
Nine (9) credit hours

FRE 2011	French Language III: AH4	3
FRE 2012	French Language IV: AH4	3

- GT - One additional GT Pathways course (AH1, AH2, AH3)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)
- CSU-Ft. Collins requires two non-US history courses.

Social and Behavioral Sciences
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Seven (7) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1, SC2)

Additional Required Courses
Ten (10) credit hours

FRE 1011	French Language I	5
FRE 1012	French Language II	5

FRE 1011 and/or FRE 1012 may be waived, based on a student's proficiency level.

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

Electives
Nineteen (19) credit hours selected from the AA approved course list can be found on page 54. Suggested courses include 2000-level French courses and courses outside the World Language department with content relating to the French-speaking world.

PLEASE NOTE: it is recommended, but not required, that a student take either COM 1150 or COM 1250.

Total Credit Hours   60

Additional information available on the French Department website at www.pikespeak.edu/programs/world-languages/world-languages-program-options.

Geography

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy for MAT 1240 or MAT 1260
- College Readiness for Algebra for MAT 1340

Geography means, from its Greek origin, "to describe the earth." It is the scientific description, analysis, and explanation of spatial variations of the earth, answering questions of location and place. Geography is divided into two major fields: physical and cultural.

Physical geography describes all phenomena of land, sea, and air at the surface of the earth. It focuses on processes that influence surface events, involving energy systems and environmental subsystems and materials. Cultural geography is the scientific study of the human-land relationship. It explores how humans impact the land, sea, and air and how they are influenced by the same. A background in geography lends itself to many professional fields including cartography, natural resource conservation, remote sensing and satellite imagery, geology, GIS (Geographic Information Systems), economics, community planning, historic preservation and resource analysis, and meteorology.

Program Learning Outcomes

Upon completion of the Geography degree program, students should be able to:

- Use information to describe a problem or issue and/or articulate a question related to the topic
- Evaluate the relevance of context when presenting a position and identify assumptions
- Establish a conclusion that is tied to the range of information presented
- Reflect on implications and consequences of stated conclusion
- Demonstrate how their own attitudes, behaviors, or beliefs compare or relate to those of other individuals, groups, communities, or cultures
- Examine diverse perspectives when investigating social and behavioral topics within natural or human systems
- Make connections between the worldviews, power structures, and experiences of individuals, groups, communities, or cultures, in historical or contemporary contexts

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three or four (3-4) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1260, except:

  - Adams State University requires MAT 1340
  - Metropolitan State University of Denver requires either MAT 1260 or MAT 1340
  - University of Colorado Denver requires either MAT 1260 or MAT 1340
  - University of Colorado, Colorado Springs prefers MAT 1240

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Eight (8) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1)
- No GEO-prefix science courses; GEY 1111 not recommended.
- Adams State, students must take BIO 1111 (SC1) and CHE 1011 (SC1)

Additional Required Courses
Fourteen (14) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

GEO 1005	World Regional Geography: SS2	3
GEO 1006	Human Geography: SS2	3
GEO 1011	Physical Geography: Landforms w/Lab: SC1	4
GEO 1012	Physical Geography: Weather, Climate & Ecosystems w/Lab: SC1	4

Electives
Thirteen-fourteen (13-14) credit hours selected from the AA approved course list can be found on page 54. Maximum of six (6) credit hours may be in GEO prefix. Number of elective credits may vary according to receiving institution. You are advised to contact an advisor at the receiving institution.

Total Credit Hours   60

Additional information available on the Geography Department website at www.pikespeak.edu/programs/geography.

History

Associate of Arts Degree with Designation
Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Historians study the past (as it is described in written documents) in order to provide insight to the present. As a student in History you will learn writing and communication skills, methods to analyze source materials, research, how to utilize digital collections and learn how to clearly present evidence. The Associate of Arts (AA) degree with designation in History includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA) degree in History. With a degree in History you may be employed in one of the following career areas: public service, law, research, politics, publishing, historical site interpretation, archival records collection analysis, historical consulting for public/private business, library management, marketing, media or education.

Students may follow the degree with designation in History or transfer guide in History to a particular four-year college/university. Consult your Faculty Advisor to assist you in determining the best pathway for you.

Program Learning Outcomes

Upon completion of the History degree program, students should be able to:

- Identify trends, events, peoples, groups, cultures, and institutions covered
- Construct historical narratives by identifying patterns of continuity and change
- Analyze secondary sources and recognize differences in historical interpretation
- Identify and evaluate the perspective of primary sources
- Use library sources for historical research
- Select and apply contemporary forms of technology to solve problems or compile information
- Be able to communicate effectively orally and in writing

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities
Nine (9) credit hours. Full list of requirements can be found on page 53.
- GT - Three GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours GT Pathways History course (HI1)

HIS 1110	The World: Antiquity-1500: HI1	3
HIS 1310	Western Civilization: Antiquity-1650: HI1	3

- University of Colorado Boulder requires either HIS 1310 or HIS 1320 to fulfill this requirement.

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Seven (7) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1, SC2). One course must be with required lab.

Additional Required Courses
Fifteen (15) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
HIS 1120	The World: 1500-Present: HI1	3
or		
HIS 1320	Western Civilization:1650-Present: HI1	(3)

HIS 1210	U.S. History to Reconstruction: HI1	3
HIS 1220	U.S. History since the Civil War: HI1	3
One (1) additional GT Pathway History (HI1) course		3

Electives
Eleven (11) credit hours selected from the AA approved course list can be found on page 54.
Note: Students planning to transfer to CSU-Ft. Collins are advised to complete at least two semesters of one college-level world language.

Total Credit Hours   60

Additional information available on the History Department website at www.pikespeak.edu/programs/history.

Humanities

Associate of Arts Course of Study

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

As a PPSC humanities student you will study history, drama, philosophy, religion, fine arts, literature, and music. The study will lead you to discover the nature of Fhumankind, the values held by those living during a particular historical period and how they relate to the circumstances of the modern world. You will learn to look at the concerns of other cultures and to reassess your own values. You may later specialize in any of the fine arts, literature, and philosophy or in the history of the arts of a particular period or country. Survey courses include the study of the arts of Asia, Africa, Latin America, ethnic American groups, and traditional western regions.

Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Humanities degree program, students should be able to:

- Create and develop ideas within the context of the situation and the assigned task(s)
- Critically read, evaluate, apply, and synthesize evidence and/or sources in support of a claim
- Follow an appropriate documentation system
- Evaluate the relevance of context when presenting a position and identify assumptions
- Establish a conclusion that is tied to the range of information presented
- Reflect on implications and consequences of stated conclusion

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication

Three (3) credit hours

COM 1150	Public Speaking	3
	or	
COM 1250	Interpersonal Communication: SS3	(3)
	or	
COM 2300	Intercultural Communication: SS3	(3)

Mathematics

Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities / Social and Behavioral Sciences

Fifteen (15) credit hours. Full list of requirements can be found on page 53.

Two GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4)

Two GT Pathways Social and Behavioral Sciences courses from two different areas (SS1, SS2, SS3)

One additional GT Pathways course from Arts and Humanities or Social and Behavioral Sciences (AH1, AH2, AH3, AH4, SS1, SS2, SS3)

Suggested Courses
GT-AH2

HUM 1003	Introduction to Film Art: AH@	3
HUM 1015	World Mythology: AH2	3
HUM 1021	Early Civilizations: AH2	3
HUM 1022	Medieval - Modern: AH2	3
HUM 1023	Modern World: AH2	3

GT-AH3

| PHI 1011 | Introduction to Philosophy: AH3 | 3 |

History

Three (3) credit hours
One guaranteed transfer course from History (HI1)

Natural and Physical Sciences

Seven (7) credit hours GT Pathways Natural and Physical Sciences courses (SC1, SC2), including at least one (1) lab course (SC1, SC2). Additional credit hours over seven (7) will be applied to the electives category. Full list of requirements can be found on page 53.

Electives

Twenty-three (23) credit hours selected from the AA approved course list can be found on page 54.

Suggested Courses

ANT 1001	Cultural Anthropology: SS3	3
DAN 1011	Modern Dance I	1
DAN 1031	Ballet I	1
DAN 1050	Dance History: AH1	3
LIT 1015	Introduction to Literature I: AH2	3
LIT 2001	World Literature to 1600: AH2	3
LIT 2005	Race, Ethnicity, and Culture in U.S. Literature: AH2	3
PED 1043	Yoga I	1
PED 1061	Tai Chi I	1
Total Credit Hours		**60**

Additional information available on the Humanities Department website at www.pikespeak.edu/programs/humanities.

Journalism

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Journalists witness and record our lives and history. In the current technological era, learning how to write and then developing an expertise in a cognate area, such as business, science, law, the performing arts, literature, sports, news, and the social or behavioral sciences areas is invaluable to the industry. Journalism has changed in the past decade and offers a wider range of job opportunities.

Journalism studies at PPSC focus on the study of mass media, reporting, feature writing, publication design, and editing. Students will learn about the multiple facets of mass communication from the internet to the printed page. Students will learn to interview, research, and write feature, newspaper and magazine articles, headlines, news releases, and advertisements. Students can also use the courses to update their skills in the digital age of news, Social Media, and web content.

Courses in art and digital photography are also available for PPSC journalism students. In addition, students who have completed core journalism courses and who secure an internship can pursue credit for their experience. Along with specific journalism courses, journalism students are encouraged to gain a general education background and start a portfolio of their work. After completing the journalism course of study at PPSC, students transferring to four-year colleges have a variety of career writing and mass communication options to pursue.

Transferability is available throughout the state of Colorado. Internships can also lead to jobs. Currently, there are internship agreements in place with KRDO, The Gazette, The Independent, and the Colorado Springs Business Journal, as well as several magazines. The Journalism Department also hosts classes that run The Paper and Parley.

Program Learning Outcomes

Upon completion of the Journalism degree program, students should be able to:

- Research and write articles, news releases, and advertisements
- Create journalistic pieces for the online dissemination of news, documentary, and infotainment
- Follow principles and practices governing public relations management

Written Communication

Six (6) credit hours. Any (GT-CO1) course plus any (GT-CO2) course **OR** Any (GT-CO2) course plus any (GT-CO3) course.

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
	OR	
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
	or	
HIS 2765	Writing About History: CO3	(3)

Mathematics

Three (3) credit hours. Any GT-MA1 course. Full list of requirements can be found on page 53.

Preferred Courses

MAT 1240	Mathematics for the Liberal Arts: MA1	4

Arts and Humanities

Six (6) credit hours. Two GT Pathways Arts & Humanities courses (GT-AH1, GT-AH2, GT-AH3, or GT-AH4). Full list of requirements can be found on page 53.

History

Three (3) credit hours. One GT Pathways History course (GT-HI1).

Social and Behavioral Sciences

Six (6) credit hours. Two GT Pathways Social & Behavioral Science courses (GT-SS1, GT-SS2, or GT-SS3).

Natural and Physical Sciences

Seven (7) credit hours. Two GT Pathways Natural & Physical Science courses (GT-SC1, GT-SC2); one of these courses must have the required laboratory (GT-SC1). Full list of requirements can be found on page 53.

Additional Required Courses

Twelve (12) credit hours

JOU 1005	Introduction to Mass Media: SS3	3
JOU 1006	Media News & Reporting	3
JOU 2025	New Media	3

Choose one of the following

JOU 1021	Photojournalism	3
JOU 2015	Publications Production & Design	3
JOU 2031	Introduction to Public Relations	3
JOU 2041	Feature & Magazine Writing	3

Electives

Seventeen (17) credit hours selected from the AA approved course list. can be found on page 54. Electives CANNOT be additional JOU courses.

Total Credit Hours	**60**

Additional information available on the Journalism Department website at www.pikespeak.edu/programs/journalism.

Music

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Music is an art form and cultural activity with sound and silence as the medium. Common elements of music are pitch, rhythm, dynamics and the sonic qualities of timbre and texture. Music is performed with a vast range of instruments and vocal techniques ranging from singing to rapping. The creation, performance, significance and even the definition of music varies according to culture and social context. The Associate of Arts (AA) degree with designation in Music includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA) degree in Music. (Careers in music typically require a bachelor's degree.) With a degree in Music you may be employed in one of the following areas: performance, education, composition, arrangement, audio production, artist management, orchestra/band/choral conducting, entrepreneurism, event production, instrument production/repair/sales, music engineering, music therapy, promotion, recruitment, public relations, talent scouting or tour work (road manager, booking agent).

Program Learning Outcomes

Upon completion of the Music degree program, students should be able to:

- Recognize Western musical forms and styles from the Middle Ages through the twentieth century
- Apply concepts of music theory to the analysis of music compositions
- Apply the fundamentals of music to the voice or specific musical instruments
- Performs various types of musical literature

Written Communication

Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics

Three (3) credit hours

- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities

Six (6) credit hours

MUS 1021	Music History Medieval thru Classical: AH1	3
MUS 1022	Music History Early Romantic Period to the Present: AH1	3

History

Three (3) credit hours. Full list of requirements can be found on page 53.

- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences

Six (6) credit hours. Full list of requirements can be found on page 53.

- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Note: CSU-Ft. Collins requires that one of these courses be PSY 1001

Natural and Physical Sciences

Seven (7) credit hours. Full list of requirements can be found on page 53.

- GT - Two GT Pathways Natural and Physical Sciences courses (SC1, SC2). One of these courses must have the required laboratory (SC1)

Additional Required Courses

Twenty-six (26) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

MUS 1010	Music Theory I	3
MUS 1011	Music Theory II	3
MUS 1012	Ear Training/Sight–singing I Lab	1
MUS 1013	Ear Training/Sight–singing II Lab	1
MUS 1031	Music Class I	2
MUS 1041	Private Instruction	1

MUS 1042	Private Instruction	1
MUS 1051	Ensemble I	1
MUS 1052	Ensemble II	1
MUS 2010	Music Theory III	3
MUS 2011	Music Theory IV	3
MUS 2012	Ear Training/Sight-Singing Lab III	1
MUS 2013	Ear Training/Sight-Singing Lab IV	1
MUS 2041	Private Instruction	1
MUS 2042	Private Instruction	1
MUS 2051	Ensemble I	1
MUS 2052	Ensemble II	1

Electives

Three (3) credit hours Music courses

| **Total Credit Hours** | **60** |

Additional information available on the Music Department website at www.pikespeak.edu/programs/music.

Philosophy

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Philosophy, literally translated from the Greek language, means 'love of wisdom'. Philosophers study matters such as life, understanding, reality, knowledge, values, reason, mind and language. As a Philosophy student you will learn to think critically, analyze information, speak, and write in a clear, articulate, and incisive manner, apply ethical reasoning to decision-making scenarios, view problems from multiple viewpoints and consider different modes of reasoning. The Associate of Arts degree with designation in Philosophy includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA) degree in Philosophy. With a degree in Philosophy you may be employed in one of the following career areas: public/social/civil service, legal practice, government, medical/general ethics, journalism, public relations, grant writing, technical writing, advertising, marketing, theology, business or education.

Program Learning Outcomes

Upon completion of the Philosophy degree program, students should be able to:

- Use information to describe a problem or issue and/or articulate a question related to the topic
- Evaluate the relevance of context when presenting a position
- Identify assumptions
- Analyze one's own and others' assumptions
- Establish a conclusion that is tied to the range of information presented
- Reflect on implications and consequences of stated conclusion

Written Communication

Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics

Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities

Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH4)

History

Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences

Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences

Seven (7) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1, SC2). One of these courses must have the required laboratory (SC1).

Additional Required Courses

Fifteen (15) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

PHI 1011	Introduction to Philosophy: AH3	3
PHI 1012	Ethics: AH3	3
PHI 1013	Logic: AH3	3
or		
PHI 2013*	Symbolic Logic: AH3	(3)

Choose two (2) courses from the following:

PHI 2005	Business Ethics: AH3	3
PHI 2014	Philosophy of Religion: AH3	3
PHI 2018	Environmental Ethics: AH3	3
PHI 2020*	Death & Dying: AH3	3

Electives

Fourteen (14) credit hours selected from the AA approved course list can be found on page 54.

| **Total Credit Hours** | **60** |

Additional information available on the Philosophy Department website at www.pikespeak.edu/programs/philosophy.

Political Science

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Political Science is the study of government: what it is, what it does, and how and why. Political scientists are interested in government at every level: local, county, state, regional, national, and international. Many of them specialize in one general area of political science such as political theory, U.S. political institutions and processes, comparative government, or international relations and organizations. Political scientists seek specialization in sub-areas within the discipline.

Program Learning Outcomes

Upon completion of the Political Science degree program, students should be able to:

- Use information to describe a problem or issue and/or articulate a question related to the topic
- Evaluate the relevance of context when presenting a position
- Identify assumptions
- Establish a conclusion that is tied to the range of information presented
- Reflect on implications and consequences of stated conclusion
- Connect disciplinary knowledge to civic engagement through one's own participation in civic life, politics, and/or government

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (MA1); prefer MAT 1260

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours

ECO 2001	Principles of Macroeconomics: SS1	3
ECO 2002	Principles of Microeconomics: SS1	3

Natural and Physical Sciences
Eight (8) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1)

Additional Required Courses
Twelve (12) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

PSC 1011	American Government: SS1	3
PSC 2005	International Relations: SS1	3
PSC 2020	Introduction to Political Science: SS1	3
PSC 2025	Comparative Government: SS1	3

Electives
Sixteen (16) credit hours selected from the AA approved course list can be found on page 54.

Please note: Additional Political Science (PSC) courses beyond the 4 courses (12 credit hours) identified above may not count toward the Political Science major at the receiving four-year institution.

Suggested Courses

ANT	Any Approved Anthropology elective	3
GEO 1005	World Regional Geography: SS2	3
GEO 1006	Human Geography: SS2	3
HIS	Any Approved History elective	3
PSC 1025	American State & Local Government: SS1	3
PSC 1050	Current Political Issues: SS1	3
Total Credit Hours		**60**

Additional information available on the Political Science Department website at www.pikespeak.edu/programs/political-science.

Professional Writing & Communication

Associate of Arts Course of Study

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Professional writing is the integration of creativity, technology, and problem solving. The ability to communicate in a variety of formats to a variety of audiences for a variety of purposes is a widely sought skill in the marketplace. Students who pursue an emphasis in professional writing particularly when coupled with another major or minor will be highly competitive for careers in education, business, and the arts.

Professional Writing majors interested in technical writing, creative writing or journalism should contact their four-year transfer institution for recommendations concerning elective courses.

Program Learning Outcomes

Upon completion of the Professional Writing & Communication degree program, students should be able to:

- Exhibit a thorough understanding of audience, purpose, genre, and context that is responsive to the situation
- Create and develop ideas within the context of the situation and the assigned task(s)
- Apply formal and informal conventions of writing, including organization, content, presentation, formatting, and stylistic choices, in particular forms and/or fields

- Critically read, evaluate, apply, and synthesize evidence and/or sources in support of a claim
- Follow an appropriate documentation system
- Demonstrate proficiency with conventions, including spellings, grammar, mechanics, and word choice appropriate to the writing task

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication
Three (3) credit hours

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities / Social and Behavioral Sciences
Fifteen (15) credit hours. Full list of requirements can be found on page 53.

Two GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4)

Two GT Pathways Social and Behavioral Sciences courses from two different areas (SS1, SS2, SS3)

One additional GT Pathways course from Arts and Humanities or Social and Behavioral Sciences (AH1, AH2, AH3, AH4, SS1, SS2, SS3)

Suggested Courses
GT-AH1

ART 1110	Art Appreciation: AH1	3
ART 1111	Art History Ancient to Medieval: AH1	3
ART 1112	Art History Renaissance to 1900: AH1	3
THE 1005	Theatre Appreciation: AH1	3

GT-AH2

HUM 1021	Early Civilization: AH2	3
HUM 1022	Medieval - Modern: AH2	3
HUM 1023	Modern World: AH2	3
LIT 1015	Introduction to Literature I: AH2	3
LIT 2001	World Literature to 1600: AH2	3
LIT 2002	World Literature after 1600: AH2	3
LIT 2021	British Literature to 1770: AH2	3
LIT 2022	British Literature since 1770: AH2	3

GT-AH3

PHI 1011	Introduction to Philosophy: AH3	3
PHI 1012	Ethics: AH3	3
PHI 1013	Logic: AH3	3

GT-SS1

ECO 2001	Principles of Macroeconomics: SS1	3
ECO 2002	Principles of Microeconomics: SS1	3

GT-SS3

JOU 1005	Introduction to Mass Media: SS3	3
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3
SOC 1001	Introduction to Sociology I: SS3	3
SOC 1002	Introduction to Sociology II: SS3	3

History
One guaranteed transfer course from History (HI1)

HIS 1210	U.S. History to Reconstruction: HI1	3
HIS 1220	U.S. History since the Civil War: HI1	3
HIS 1310	Western Civilization: Antiquity-1650: HI1	3
HIS 1320	Western Civilization: 1650-Present: HI1	3

Natural and Physical Sciences
Seven (7) credit hours GT Pathways Natural and Physical Sciences courses (SC1, SC2), including at least one (1) lab course (SC1, SC2). Additional credit hours over seven (7) will be applied to the electives category. Full list of requirements can be found on page 53.

Electives
Twenty-three (23) credit hours selected from the AA approved course list can be found on page 54.

Suggested Courses

ENG 1031	Technical Writing I: CO1	3
ENG 2001	English Composition III: CO3	3
ENG 2021	Creative Writing I: AH1I	3
ENG 2022	Creative Writing II	3
ENG 2027	Poetry Writing	3
ENG 2030	Creative Nonfiction	3
JOU 1005	Introduction to Mass Media: SS3	3
JOU 1006	Media News & Reporting	3
JOU 2015	Publications Production & Design	3
JOU 2025	New Media	3
JOU 2031	Introduction to Public Relations	3
JOU 2041	Feature & Magazine Writing	3
Total Credit Hours		**60**

Additional information available on the Professional Writing & Communication Department website at www.pikespeak.edu/programs/english/english-program-options.

Psychology

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy for MAT 1240 or MAT 1260
- College Readiness for Algebra for MAT 1340

Psychologists study the behavior of individuals and groups and often help individuals achieve satisfactory personal adjustments. Their work includes varied activities such as teaching in colleges and universities, counseling and psychotherapy, psychological testing, planning, and conducting training programs for workers, performing basic and applied research, advising on psychological methods and theories, and administering psychology programs in hospitals, clinics, research laboratories, etc. Students pursuing a bachelor's degree in psychology can fulfill lower division requirements at Pikes Peak State College. Students should note that graduate degrees are required for most professional positions in psychology.

NOTE: Psychology majors are advised to complete PSY 1001 and PSY 1002.

Students may follow the degree with designation in Psychology or transfer guide in Psychology to a particular four-year college or university. Consult your Faculty Advisor to assist you in determining the best pathway for you.

Program Learning Outcomes

Upon completion of the Psychology degree program, students should be able to:

- Recognize content as specified by the American Psychological Association (APA) Guidelines for the Undergraduate Psychology Major
- Identify research methods as specified by the American Psychological Association (APA) Guidelines for the Undergraduate Psychology Major
- Identify ethical standards of the American Psychological Association (APA)
- Recognize American Psychological Association (APA) citation style

Courses marked with an asterisk [*] are not currently offered at PPSC.

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Four (4) credit hours

- GT - One GT Pathways course (GT-MA1); prefer MAT 1260, except:
  - Colorado Mesa University requires either MAT 1240 or MAT 1340
  - Colorado State University, Pueblo prefers MAT 1340
  - Fort Lewis College requires MAT 1260
  - University of Colorado, Boulder requires MAT 1340 or higher
  - University of Colorado, Colorado Springs requires MAT 1340
  - Western State Colorado University requires MAT 1340

Arts and Humanities
Nine (9) hours. Full list of requirements can be found on page 53.
- GT – Three GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4). No more than two (2) courses from any one category.

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Seven-eight (7-8) credit hours. Full list of requirements can be found on page 53.
- One GT Pathways Biology course (SC1). Course must have the required laboratory.
- One Pathways Natural and Physical Sciences course (SC1).

Additional Required Courses
Eighteen (18) credit hours

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

COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3

Choose nine (9) credit hours GT Pathways Psychology courses (SS3)

PSY 2105	Psychology of Gender: SS3	3
PSY 2107	Human Sexuality: SS3	3
PSY 2221	Social Psychology: SS3	3
PSY 2222	The Psychology of Death & Dying: SS3	3
PSY 2333	Health Psychology: SS3	3
PSY 2440	Human Growth & Development: SS3	3
PSY 2441	Child Development: SS3	3
PSY 2552	Abnormal Psychology: SS3	3
PSY 2771	Psychology of Personality: SS3	3

Electives
Six-eight (6-8) credit hours selected from the AA approved course list can be found on page 54.

Total Credit Hours	**60**

Additional information available on the Psychology Department website at www.pikespeak.edu/programs/psychology.

Public Health

Associate of Arts Degree with Designation

Public health takes a population-based focus to health. Individuals in this field interpret community data to determine health needs and intervention priorities. Studying public health gives students the chance to encourage healthy lifestyles through raised awareness and education. Public health professionals contribute to a number of health initiatives and work with community leaders to plan, implement, and evaluate health education interventions. These include chronic and infectious disease awareness campaigns, vaccination programs, and family planning and prenatal care initiatives.

Although public health professionals often work for local, state or federal public health departments, federal agencies such as the NIH, CDC and branches of the armed forces also employ all types of public health workers. Private industrial companies, hospitals, pharmaceutical companies, and research institutions may also hire public health specialists to ensure health and safety standards. Voluntary health agencies, such as the American Cancer Society, the American Heart Association, and the Alzheimer's Association often employ public health professionals to run programs and assume administrative roles.

This program is designed for students to take their general education courses at PPSC and then transfer to these institutions:

Fort Lewis College [*B.A. Public Health*]
University of Colorado Denver [*B.A. Public Health*]
University of Northern Colorado [*B.S. Human Services*]

Program Learning Outcomes

Upon completion of the Public Health program, students should be able to:

- Summarize and apply foundational knowledge of the biological sciences
- Determine and apply appropriate cultural competency
- Interpret qualitative and quantitative data

Courses marked with an asterisk [*] are not currently offered at PPSC.

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three-four (3-4) credit hours

MAT 1260	Introduction to Statistics: MA1	3

Arts and Humanities
Six (6) credit hours. Full list of requirements can be found on page 53.

- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4).

History
Three (3) credit hours. Full list of requirements can be found on page 53.

- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.

PSY 1001	General Psychology I: SS3	3

PLUS any one of the following

ANT 2550	Medical Anthropology: SS3	3
PSY 2333	Health Psychology: SS3	3
PSY 2440	Human Growth & Development: SS3	3
PSY 2552	Abnormal Psychology: SS3	3

Natural and Physical Sciences
Eight-ten (8-10) credit hours. Full list of requirements can be found on page 53.

BIO 1111	General College Biology I w/Lab: SC1	5
BIO 1112	General College Biology II w/Lab: SC1	5
OR		

Choose two of the following

ANT 1005	Biological Anthropology w/Lab: SC1	4
BIO 1004	Biology: A Human Approach: SC1	4
BIO 1005	Science of Biology w/Lab: SC1	4

Additional Required Courses
Twelve (12) credit hours
Please note: if these credits are not required for the major at a receiving four-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.

Choose ONE from

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3

Choose ONE from

PHI 1012	Ethics: AH3	3
PHI 1013	Logic: AH3	3

Choose ONE from

ANT 2550	Medical Anthropology: SS3	3
BIO 1016*	Introduction to Human Disease: SC2	3
PSY 2222	Psychology of Death and Dying: SS3	3
PSY 2333	Health Psychology: SS3	3
SOC 2037	Sociology of Death and Dying: SS3	3

Choose ONE additional course from MA1, SC1 or SC2

BIO 2104	Microbiology w/Lab: SC1	4
BIO 2116	Human Pathophysiology	4
ENV 1111	Environmental Science w/Lab: SC1	4

Electives
Fourteen to sixteen (14-16) credit hours
Choose in consultation with a program advisor at the receiving four-year institution.

Total Credit Hours	**60**

Social Work Transfer

Associate of Arts Course of Study

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This program provides the first two years for transfer students who wish to pursue a career in social work or the human services field. Because of different requirements at four-year institutions, it is important that students work with advisors. Students planning to transfer are advised to consult with an advisor.

NOTE: To be employed in the social work field it is expected that you will be able to pass background checks. This will include fingerprinting for the Colorado Bureau of Investigation and a Central Registry Inquiry.

Program Learning Outcomes

Upon completion of the Social Work Transfer degree program, students should be able to:

- Evaluate and discuss matters of inequality impacting various demographic groups based on gender, power, culture, religion, and sexuality
- Distinguish the various social service agencies available in the community and contrast how each unique service can meet the needs of unique individuals and their circumstances
- Construct a warranted conclusion by recognizing assumptions, interpreting data, evaluating evidence, and examining implications
- Assess issues affecting their communities from a variety of perspectives

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication
Three (3) credit hours

Suggested Course
COM 1150   Public Speaking   3

Mathematics
Three (3) credit hours

Required Course
MAT 1260   Introduction to Statistics: MA1   3

Arts and Humanities
Six (6) credit hours GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4). Full list of requirements can be found on page 53.

Social and Behavioral Sciences
Nine (9) credit hours
PSC 1011   American Government: SS1   3
PSY 1001   General Psychology I: SS3   3
SOC 1001   Introduction to Sociology I: SS3   3

History
Three (3) credit hours GT Pathways History course (HI1)

Natural and Physical Sciences
Eight (8) credit hours GT Pathways Natural and Physical Sciences courses (SC1, SC2), including at least one (1) lab course (SC1, SC2). Full list of requirements can be found on page 53.

Required Courses
BIO 1005   Science of Biology w/Lab: SC1   4
           Four (4) credit hours from SC1 or SC2   4

Additional Required Courses
Eighteen (18) credit hours
SWK 1000   Introduction to Social Work   3
SWK 2010   Human Behavior in the Social Environment I   3
SWK 2020   Human Behavior in the Social Environment II   3
SWK 2050   Social Welfare in the U.S.   3
SWK 2222   Introduction to Social Work Practice   3
WST 2000   Introduction to Women's Studies: SS3   3

Electives
Three-four (3-4) credit hours selected from the AA approved course list
Suggested Course
SOC 2018   Sociology of Diversity: SS3   3

Total Credit Hours   60

Additional information available on the Social Work Department website at www.pikespeak.edu/programs/social-work.

Sociology

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy for MAT 1240 or MAT 1260
- College Readiness for Algebra for MAT 1320 or MAT 1340

Sociology is a systematic study of society which includes people in groups, cultures and subcultures, the socialization process, social organization, social institutions (political, religious, educational, economic, etc.), social stratifications, social change, race and ethnic relations, human ecology, and social problems. As an intellectual discipline, it deals with developing scientific and reliable knowledge about human social relationships in group life. Courses are designed to increase personal awareness of the social environment, to prepare for interpersonal relationships in careers, and to equip students for further studies in sociology.

Program Learning Outcomes

Upon completion of the Sociology degree program, students should be able to:

- Identify and explain the three main theoretical perspectives of sociology
- Apply theoretical perspectives to explain stratification in society
- Communicate effectively sociological content in a written format
- Use the tools of sociology to analyze social realities
- Identify and apply knowledge of key sociological concepts

Written Communication
Six (6) credit hours
ENG 1021   English Composition I: CO1   3
ENG 1022   English Composition II: CO2   3
     OR
ENG 1022   English Composition II: CO2   (3)
ENG 2001   English Composition III: CO3   (3)
     or
HIS 2765   Writing About History: CO3   (3)

Mathematics
Three-four (3-4) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1260, except:

  - Adams State University prefers MAT 1340
  - Colorado Mesa University requires either MAT 1240 or MAT 1340
  - University of Colorado, Denver requires either MAT 1260 or MAT 1320 or MAT 1340
  - Western State Colorado University requires either MAT 1240 or MAT 1340

Arts and Humanities
Nine (9) credit hours. Full list of requirements can be found on page 53.
- GT - Three GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Eight (8) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1)

Additional Required Courses
Eighteen (18) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking	3
	or	
COM 1250	Interpersonal Communication: SS3	(3)
SOC 1001	Introduction to Sociology I: SS3	3
SOC 1002	Introduction to Sociology II: SS3	3
Three (3) additional GT Pathways Sociology courses (SS3)		9

Electives

Six-seven (6-7) credit hours selected from the AA approved course list can be found on page 54.

Please note: Additional SOC courses beyond the 5 courses (15 credit hours) identified above may not count toward the Sociology major at the receiving four-year institution.

Suggested Courses

ANT 1001	Cultural Anthropology: SS3	3
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3
SOC 2005	Sociology of Family Dynamics: SS3	3
SOC 2007	Environmental Sociology: SS3	3
SOC 2016	Sociology of Gender: SS3	3
SOC 2018	Sociology of Diversity: SS3	3
SOC 2020	Sociology of Religion: SS3	3
SOC 2031	The Sociology of Deviant Behavior: SS3	3
SOC 2037	Sociology of Death & Dying: SS3	3
WOL	Any World Language	5
Total Credit Hours		**60**

Additional information available on the Sociology Department website at www.pikespeak.edu/programs/sociology.

Spanish

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

PPSC's world language programs are built around the standards put forth by The American Council on the Teaching of World Languages (ACTFL). ACTFL establishes a framework guiding the standards of world language study. When you study Spanish, you will communicate with others in Spanish, both in and out of the classroom. You will learn about and experience other cultures, make connections between your target language and other disciplines, make comparisons between your native culture/language and the target language and culture; and become active in communities of the language you are learning. The AA degree with designation in Spanish includes courses that are common to all four-year institutions in Colorado and will prepare you for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA degree) in Spanish or any other discipline. An AA degree with designation in Spanish may be a good beginning to any four-year degree as it is a valuable enhancement to any bachelor's degree program. All four-year universities in Colorado now have a minimum world language requirement as part of admission. World language study is compatible with all other disciplines, especially law enforcement, health professions, education, social and behavioral sciences, business, journalism, and art history.

Students considering a major in a world language should be aware that first-year language courses do not count toward credit-hour requirements for a major or minor in most four-year institutions.

Students may follow the degree with designation in Spanish or transfer guide in Spanish to a particular four-year college/university. Consult your Faculty Advisor to assist you in determining the best pathway for you. Please note that the degree tracks in Spanish for the Professions and Spanish with Secondary Teaching Licensure have different requirements and are not included in this agreement.

Program Learning Outcomes

Upon completion of the Spanish degree program, students should be able to:

- Develop a central message
- Employ language that enhances the presentation
- Incorporate language that is appropriate to the audience
- Demonstrate performance skills, (posture, gesture, eye contact, and vocal expressiveness) to share content with or present to a particular audience for a specific occasion and purpose (execute delivery)

Written Communication

Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
	OR	
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
	or	
HIS 2765	Writing About History: CO3	(3)

Mathematics

Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities

Nine (9) credit hours

| SPA 2011 | Spanish Language III: AH4 | 3 |
| SPA 2012 | Spanish Language IV: AH4 | 3 |

- GT - One GT Pathways Arts and Humanities courses from (AH1, AH2, AH3, AH4). Students with a higher proficiency level than is required for SPA 2011 or SPA 2012 should substitute other Arts and Humanities courses. Heritage speakers may want to substitute SPA 2061 and SPA 2062, if available.

History

Three (3) credit hours GT Pathways History course (HI1)

HIS 2200	History of Latin America: HI1	3
	or	
One GT Pathways History course (HI1) focusing on the Spanish-speaking world (non-U.S.) or another GT Pathways non-U.S. History course.		(3)

Social and Behavioral Sciences

Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences

Seven (7) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1, SC2). One of these courses must have the required laboratory (SC1)

Additional Required Courses

Thirteen (13) credit hours

Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with

the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking (recommended)	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
SPA 1011	Spanish Language I	5
SPA 1012	Spanish Language II	5

PLEASE NOTE: SPA 1011 and/or SPA 1012 may be waived, based on a student's proficiency level. Students should consult a departmental advisor at the four-year college or university.

Electives
Thirteen (13) credit hours selected from the AA approved course list can be found on page 54. Suggested courses include 2000-level Spanish courses; courses outside the World Language department with content related to the Spanish-speaking world.

Total Credit Hours	60

Additional information available on the Spanish Department website at www.pikespeak.edu/programs/world-languages/world-languages-program-options.

Theatre

Associate of Arts Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

As a student in Theatre you will learn fundamental performance and technical production processes for the theatre arts, discuss the historical and cultural dimensions of theatre, and understand the interaction between script, actor, and audience as well as the areas of scenery, lighting, sound and costume. The Associate of Arts (AA) degree with designation in Theatre includes courses that are common to all four-year institutions in Colorado and prepares students for continued study at a four-year college/university in pursuit of a Bachelor of Arts (BA) degree in Theatre. With a degree in Theatre you may be employed in one of the following career areas: education, design, technical theatre, theatre management, advertising, marketing, management, social work, professional performance, stage direction, or stage management.

Program Learning Outcomes

Upon completion of the Theatre degree program, students should be able to:

- Discuss the history and development of theatrical practices from Ancient Greece to present as well as non-western forms of theatre
- Implement playwriting techniques emphasizing elements of dramatic structure, dialogue, styles, creative writing, and theatrical practices
- Apply theories of theatre production as they relate to participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing, and administration
- Present a theatrical production to the public in a real acting environment

Written Communication
Six (6) credit hours
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)

ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities
Six (6) credit hours
| THE 1005 | Theatre Appreciation: AH1 | 3 |
| THE 2011 | Development of Theatre Greek-Renaissance: AH1 | 3 |

Students planning to attend University of Colorado Boulder in Theatre should consult UCB Theatre advisors regarding THE 1005.

History
Three (3) credit hours. Full list of requirements can be found on page 53.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Seven (7) credit hours. Full list of requirements can be found on page 53.
- GT - Two GT Pathways Natural and Physical Sciences courses (SC1, SC2). One of these courses must have the required laboratory (SC1).

Additional Required Courses
Eighteen (18) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

THE 1008	Theatre Script Analysis: AH1	3
THE 1011	Acting I	3
THE 1016	Technical Theatre	3
THE 2012	Development of Theatre Restoration to Modern: AH1	3
THE 2015	Playwriting: AH1	3

Choose one (1) course from the following:
THE 1031	Theatre Production I	3
THE 1032	Theatre Production II	3
THE 2031	Theatre Production III	3
THE 2032	Theatre Production IV	3

Electives
Eleven (11) credit hours selected from the AA approved course list. Students interested in attending MSU Denver or CSU-Fort Collins are advised to take COM 1150.

Students who plan to transfer to UCB may not take elective courses with a THE prefix.

Total Credit Hours	60

Additional information available on the Theatre Department website at www.pikespeak.edu/programs/theatre.

World Languages

Associate of Arts Course of Study

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

As a PPSC world language student, you will be prepared to be a responsible citizen, educated worker, and culturally prepared for a world that is based on international partnerships. You will experience classes that are more than lectures because they employ modern learning approaches and techniques. Our innovative and creative instructors will work closely to help each student with language appreciation and acquisition while helping them to master grammatical written work and linguistics.

Students may need to contact a World Language instructor in order to be placed into the correct level of that given language.

Students considering a major in a world language should be aware that first-year language courses do not count toward credit-hour requirements for a major or minor in most four-year institutions.

There is a national equivalency test that can be located on the internet. It is the College Level Examination Program, C.L.E.P. It is currently available in French, Spanish, and German. This test costs a small amount of money, but it offers the student a chance to test out of the language 1011 and 1012 courses for up to ten hours of college credit.

Program Learning Outcomes

Upon completion of the World Languages degree program, students should be able to:

- Develop a central message
- Employ language that enhances the presentation
- Incorporate language that is appropriate to the audience
- Demonstrate performance skills, (posture, gesture, eye contact, and vocal expressiveness) to share content with or present to a particular audience for a specific occasion and purpose (execute delivery)

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication
Three (3) credit hours

COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
COM 2300	Intercultural Communication: SS3	(3)

Mathematics
Three (3) credit hours
- GT - One GT Pathways course (GT-MA1); prefer MAT 1240

Arts and Humanities / Social and Behavioral Sciences
Fifteen (15) credit hours. Full list of requirements can be found on page 53.

Two GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4).

Two GT Pathways Social and Behavioral Sciences courses from two different areas (SS1, SS2, SS3).

One additional GT Pathways course from Arts and Humanities or Social and Behavioral Sciences (AH1, AH2, AH3, AH4, SS1, SS2, SS3).

GT-AH4

WOL 2011	World Language III	3
WOL 2012	World Language IV	3

History
One guaranteed transfer non-U.S. History course from History (HI1).

Natural and Physical Sciences
Seven (7) credit hours GT Pathways Natural and Physical Sciences courses (SC1, SC2), including at least one (1) lab course (SC1, SC2). Additional credit hours over seven (7) will be applied to the electives category. Full list of requirements can be found on page 53.

Electives
Twenty-three (23) credit hours selected from the AA approved course list can be found on page 54.

Ten (10) credit hours

WOL 1011	World Language I	5
WOL 1012	World Language II	5

Thirteen (13) credit hours selected from the AA approved course list can be found on page 54. Suggested courses include 2000-level WOL courses and courses outside the chosen WOL department with content related to the WOL-speaking world.

Total Credit Hours   60

[1]WOL is a standard course prefix. Each specific world language has its own prefix, for example, SPA = Spanish.

Additional information available on the World Language Department website at www.pikespeak.edu/programs/world-languages.

Associate of Science Degree (AS)

The Associate of Science degree is designed for students who want an emphasis in natural sciences, mathematics, computer science, pre-engineering, and pre-allied health and intend to transfer to four-year colleges and universities.

To earn the Associate of Science Degree, students must complete the following course requirements for a total of 60 semester credit hours, at least 36 of which must be Colorado State-Guaranteed Courses. Receiving institutions will accept all applicable credits earned within ten years of transfer to the receiving institution. Credits earned over ten years will be evaluated on a course-by-course basis.

Courses marked with an asterisk [*] are not currently offered at PPSC.

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	3
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication
Three (3) credit hours

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3

Mathematics
Three (3) credit hours

GT-MA1: MAT 1240, MAT 1260, MAT 1320, MAT 1340, MAT 1400, MAT 1420, MAT 1440, MAT 2410, MAT 2420, MAT 2430, MAT 2431, MAT 2520, MAT 2560, MAT 2561*

History
Three (3) credit hours

GT-HI1: HIS 1110, HIS 1120, HIS 1210, HIS 1220, HIS 1310, HIS 1320, HIS 2000, HIS 2005, HIS 2015, HIS 2105, HIS 2110, HIS 2115, HIS 2125, HIS 2130, HIS 2135, HIS 2140, HIS 2145, HIS 2200, HIS 2210*, HIS 2300, HIS 2310, HIS 2500, HIS 2510, HIS 2610

Arts and Humanities
Six (6) credit hours. Two GT Pathways courses from two different areas (AH1, AH2, AH3, AH4).

GT-AH1: ART 1110, ART 1111, ART 1112, ART 1113, COM 1300, DAN 1025, DAN 1050, MUS 1020, MUS 1021, MUS 1022, MUS 1023, MUS 1025, THE 1005, THE 1008, THE 2011, THE 2012, THE 2015

GT-AH2: HUM 1003, HUM 1015, HUM 1021, HUM 1022, HUM 1023, LIT 1015, LIT 2001, LIT 2002, LIT 2005, LIT 2011, LIT 2012, LIT 2021, LIT 2022, LIT 2025, LIT 2046, LIT 2058, LIT 2059*, LIT 2068

GT-AH3: PHI 1011, PHI 1012, PHI 1013, PHI 1014, PHI 1015, PHI 1016, PHI 1041*, PHI 1042, PHI 2005, PHI 2013*, PHI 2014, PHI 2018, PHI 2020*

GT-AH4: FRE 2011, FRE 2012, GER 2011, GER 2012, ITA 2011, ITA 2012, JPN 2011, JPN 2012, RUS 2011, RUS 2012, SPA 2011, SPA 2012

Social and Behavioral Sciences
Six (6) credit hours. Two GT Pathways courses from two different areas (SS1, SS2, SS3).

GT-SS1: AGE 1102*, ECO 1001, ECO 2001, ECO 2002, ECO 2011*, ECO 2045, PSC 1011, PSC 1025, PSC 1050, PSC 2005, PSC 2020, PSC 2025

GT-SS2: GEO 1005, GEO 1006

GT-SS3: AGR 2106*, ANT 1001, ANT 1002*, ANT 1003, ANT 1208*, ANT 2115, ANT 2125, ANT 2550, COM 2300, CRJ 1010, JOU 1005, PSY 1001, PSY 1002, PSY 2105, PSY 2107, PSY 2221, PSY 2222, PSY 2331, PSY 2333, PSY 2440, PSY 2441, PSY 2552, PSY 2771, SOC 1001, SOC 1002, SOC 2005, SOC 2007, SOC 2016, SOC 2018, SOC 2020, SOC 2031, SOC 2037, WST 2000, WST 2100, WST 2200*, WST 2300*

Natural and Physical Sciences
Twelve (12) credit hours. One (2 course) lab sequence in any GT Pathways science discipline (SC1); additional GT Pathways lab science course (SC1).
Meet with your advisor to choose the appropriate Natural and Physical Sciences classes for your Associate of Science degree. While all GT-SC1 classes transfer, some may not be applicable to your academic goals.

GT-SC1: AGY 2140, ANT 1005, ANT 2315, AST 1110, AST 1120, BIO 1004, BIO 1005, BIO 1111, BIO 1112, BIO 2101, BIO 2102, BIO 2104, BIO 2108*, BIO 2121, BIO 2124, CHE 1005, CHE 1011, CHE 1012, CHE 1111, CHE 1112, ENV 1111, GEO 1011, GEO 1012, GEY 1111, GEY 1112, GEY 1135, GEY 1155, MET 1050, PHY 1105, PHY 1107*, PHY 1111, PHY 1112, PHY 2111, PHY 2112, SCI 1055, SCI 1056

Additional Required Courses and Electives
Twenty-one (21) credit hours selected from the AS approved course list.

Total Credit Hours	**60**

Other Requirements

1. A minimum of 60 credit hours in a prescribed program of study with a cumulative grade point average of 2.0 (a C average). At least 15 of these credit hours must be earned from PPSC.

2. Only six (6) elective credits are allowed in any combination of PED courses.

3. Students may concentrate their study in a specialized area such as biology or chemistry. Many "Degrees with Designation" and "Course of Study" are included in the next section of this catalog.

4. Career and technical education courses, whether taken at another institution or at PPSC, are not accepted toward this degree without approval of the Vice President for Instructional Services. Approval is given only when it is appropriate to the educational objectives of a student.

5. Courses numbered below 1000 do not apply toward degrees.

World Language Note: It is advisable to verify the world language admissions requirements for the university/four-year college you are planning to attend. For example, many of the Colorado four-year institutions require world languages for admission; the CU system requires 2-3 years of high school world language (or equivalent 2-3 semesters at Pikes Peak State College). Students planning to attend a Colorado four-year institution who do not have the prerequisite world language requirement from high school should consider enrolling in these courses in addition to the degree requirements.

Approved Elective Course List for AS Degrees

These courses are guaranteed to transfer as part of the 60+60 Bachelor's Degree Transfer Program. State-wide and individual college transfer agreements prescribe electives which transfer as part of those programs. Students who transfer prior to completing the AS degree are responsible for checking transfer of individual courses with the receiving four-year institution.

Twenty-one (21) credits must be selected from the following list of Mathematics and Science courses to complete the Associate of Science Degree. Up to two credits can be selected from the Associate of Arts Approved Electives list.

Mathematics

MAT 1260	Introduction to Statistics: MA1	3
MAT 1340	College Algebra: MA1	4
MAT 1400	Survey of Calculus: MA1	4
MAT 1420	College Trigonometry: MA1	3
MAT 1440	Pre-Calculus: MA1	5
MAT 2410	Calculus I: MA1	5
MAT 2420	Calculus II: MA1	5
MAT 2430	Calculus III: MA1	4
MAT 2431	Calculus III with Engineering Applications: MA1	5
MAT 2520	Discrete Mathematics: MA1	4
MAT 2560	Differential Equations: MA1	3

Natural and Physical Sciences

AST 1110	Planetary Astronomy w/Lab: SC1	4
AST 1120	Stellar Astronomy w/Lab: SC1	4
BIO 1111	General College Biology I w/Lab: SC1	5
BIO 1112	General College Biology II w/Lab: SC1	5
BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
BIO 2104	Microbiology w/Lab: SC1	4
BIO 2116	Human Pathophysiology	4
BIO 2121	Botany w/Lab: SC1	5
BIO 2124	Genetics: SC1	4
CHE 1111	General College Chemistry I w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5
CHE 2111	Organic Chemistry I w/Lab	5
CHE 2112	Organic Chemistry II w/Lab	5
CSC 1005	Computer Literacy	3
CSC 1019	Introduction to Programming: Programming Language)	3
CSC 1020	Problem Solving with (Software Package)	3
CSC 1026	Game Design & Development	3
CSC 1060	Computer Science I (Language)	4
CSC 1061	Computer Science II (Language)	4
CSC 2025	Computer Architecture/Assembly Language Programming	4
CSC 2030	C Programming: Platform	3
CSC 2040	Java Programming	3
EGG 1020	Engineering Methodologies	3
EGG 1040	Engineering Projects	3
EGG 1060	Introduction to Engineering Computing	4
EGG 2011	Engr Mechanics I – Statics	3
EGG 2012	Engineering Mechanics II (Dynamics)	3
EGG 2020	Thermodynamics	3
EGG 2030	Mechanics of Solids	3
EGG 2050	Engineering Economics	3
EGT 1110	IDEA: Introduction to Design and Engineering Applications	3
ENV 1111	Environmental Science w/Lab: SC1	4
GEO 1011	Physical Geography: Landforms w/Lab: SC1	4
GEO 1012	Physical Geography: Weather, Climate & Ecosystems w/Lab: SC1	4
GEY 1111	Physical Geology w/Lab: SC1	4
GEY 1112	Historical Geology w/Lab: SC1	4
GEY 1135	Environmental Geology w/Lab: SC1	4
MET 1050	General Meteorology w/Lab: SC1	4
PHY 1111	Physics: Algebra-Based I w/Lab: SC1	5
PHY 1112	Physics: Algebra-Based II w/Lab: SC1	5
PHY 2111	Physics: Calculus-Based I w/Lab: SC1	5
PHY 2112	Physics: Calculus-Based II w/Lab: SC1	5

Associate of Science Degrees and Courses of Study

Allied Health

Associate of Science Course of Study

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

The degree options are designed for students applying to programs at four-year schools in Colorado for medical technology and physical therapy. These emphasize physiology, anatomy, chemistry, and physics. Either one or two years may be used for transfer credit to other schools. As specific requirements may vary among different schools, students are encouraged to consult catalogs of the colleges to which they plan to apply. Programs should be planned with academic advisors prior to beginning classes.

Program Learning Outcomes

Upon completion of the Allied Health degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication
Three (3) credit hours

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3

Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category). Full list of requirements can be found on page 83.

Suggested Course

MAT 1340	College Algebra: MA1	4

Arts and Humanities

Six (6) credit hours GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4)

History

Three (3) credit hours GT Pathways History course (HI1)

Social and Behavioral Sciences

Six (6) credit hours GT Pathways Social and Behavioral Sciences courses from two different areas (SS1, SS2, SS3)

Natural and Physical Sciences

Twelve (12) credit hours GT Pathways Natural and Physical Sciences courses (SC1); additional GT Pathways lab science course (SC1). Additional credits over 12 will be included in the electives category. Full list of requirements can be found on page 83.

Suggested Courses

BIO 1111	General College Biology I w/Lab: SC1	5
PHY 1111	Physics: Algebra-Based I w/Lab: SC1	5

Electives

Twenty-one (21) credit hours selected from the AS approved course list can be found on page 84. Please see your advisor for help choosing your electives.

Suggested Course

BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
BIO 2104	Microbiology w/Lab: SC1	4
CHE 1111	General College Chemistry I w/Lab: SC1	5
Total Credit Hours		**60**

Additional information available on the Pre-Allied Health Department website at www.pikespeak.edu/programs/allied-health.

Biology

Associate of Science Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
     or
- MAT 1340 and MAT 1440

The study of biology prepares one for a variety of fields including the traditional ones–biology teacher, doctor, nurse, or conservationist. New fields have developed in several life science areas such as paramedicine, cellular biology, wildlife management, and forestry. It is strongly recommended that students consult with an advisor for the specific requirements in these fields.

Students are strongly encouraged to seek academic advising prior to registration regarding the acceptability of online science courses if they anticipate transferring to a four-year institution or completing graduate work in the sciences or health professions. It should be noted that per Colorado Revised Statute, §23-1-125(1)(e), general education courses taken online are guaranteed

to satisfy core course (GT Pathways) requirements at all Colorado public institutions of higher education.

Program Learning Outcomes

Upon completion of the Biology degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings
- Demonstrate proper laboratory techniques and safe practices

Written Communication

Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics

Five (5) credit hours

MAT 2410	Calculus I: MA1	5

Arts and Humanities

Six (6) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History

Three (3) credit hours. Full list of requirements can be found on page 83.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences

Six (6) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences

Ten (10) credit hours

BIO 1111	General College Biology I w/Lab: SC1	5
CHE 1111	General College Chemistry I w/Lab: SC1	5

Additional Required Courses

Twenty (20) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

BIO 1112	General College Biology II w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5
PHY 1111	Physics: Algebra-Based I w/Lab: SC1	5
PHY 1112	Physics: Algebra-Based II w/Lab: SC1	5

Electives

Four (4) credit hours selected from the AS approved course list can be found on page 85.

Total Credit Hours	60

Additional information available on the Biology Department website at www.pikespeak.edu/programs /biology.

Chemistry

Associate of Science Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
         or
- MAT 1340 and MAT 1440

Chemistry is one of the most diverse sciences. A chemist can study in a wide range of areas such as nuclear chemistry, biochemistry of life, chemistry of inorganic and/or organic compounds, the theory of chemical processes, and chemistry of the environment. There are many career opportunities relating to chemistry such as teaching, industrial processes, medical science, criminology, metallurgy, food processing, pharmacology, geochemistry, and environmental sciences.

Program Learning Outcomes

Upon completion of the Chemistry degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings
- Work effectively in diverse teams in both classroom and laboratory settings
- Follow proper procedures for safe handling and use of chemicals

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Five (5) credit hours

MAT 2410	Calculus I: MA1	5

Arts and Humanities
Three (3) credit hours. Full list of requirements can be found on page 83.
- GT - One GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 83.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Three (3) credit hours. Full list of requirements can be found on page 83.
- GT - One GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Ten (10) credit hours

CHE 1111	General College Chemistry I w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5

Additional Required Courses
Twenty-nine (29) credit hours

CHE 2111	Organic Chemistry I w/Lab	5
CHE 2112	Organic Chemistry II w/Lab	5
MAT 2420	Calculus II: MA1	5
MAT 2430	Calculus III: MA1	4
PHY 2111	Physics: Calculus-Based I w/Lab: SC1	5
PHY 2112	Physics: Calculus-Based II w/Lab: SC1	5

Electives
One (1) credit hour selected from the AS approved course list can be found on page 84.

Total Credit Hours	60

Additional information available on the Chemistry Department website at www.pikespeak.edu/programs/chemistry.

Computer Science

Associate of Science Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
         or
- MAT 1340 and MAT 1440

This program prepares students for transfer to a four-year school to obtain a baccalaureate degree. Individual courses are needed by students who wish to use the computer to solve problems in engineering, mathematics, sciences, and social sciences leading toward careers in telecommunications, computer design, and computer applications within various science and engineering fields. These courses are also of interest to people who are striving to master their personal computers.

Program Learning Outcomes

Upon completion of the Computer Science degree program, students should be able to:

- Discuss ways in which technology and computers impacts individuals and society
- Compare and contrast PC hardware and software systems as an informed consumer
- Install and configure computer software/hardware programs
- Use a computer operating system to manage files, folders, and drives
- Search the internet for personal, academic, and business use
- Use various communication tools for personal, academic, and business purpose
- Use writing, financial/statistical, presentation and data collecting/organization tools

Written Communication

Six (6) credit hours. Any (GT-CO1) course plus any (GT-CO2) course **OR** Any (GT-CO2) course plus any (GT-CO3) course.

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics

Five (5) credit hours

Additional coursework might be required to meet prerequisite requirements for calculus. Prerequisite courses may apply toward elective credit hours. Full list of requirements can be found on page 83.

MAT 2410	Calculus I: MA1	5

Arts and Humanities

Six (6) credit hours GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4). Full list of requirements can be found on page 83.

History

Three (3) credit hours. Any one GT Pathways History course (GT-HI1). Full list of requirements can be found on page 83.

Social and Behavioral Sciences

Six (6) credit hours. Any two (2) GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3). Full list of requirements can be found on page 83.

Natural and Physical Sciences

Seven (7) credit hours. Select from GT-SC1/GT-SC2 courses with at least one GTSC1 course. GT-SC1/GT-SC2 courses in sequence (same discipline) are recommended (and may be required depending on the receiving institution; consult the advising office). Courses must be selected in consultation with the advising office from the community college and from the intended transfer institution, if known. Seven credit minimum; additional credits in this area will be applied toward electives.

Additional Required Courses

Twelve (12) credit hours

CSC 1060	Computer Science I: (Language)	4
CSC 1061	Computer Science II: (Language)	4
CSC 2025	Computer Architecture/Assembly Language Programming	5

Electives

Fifteen (15) credit hours. A total of 15 additional elective credits are required to complete the Associate Degree with Designation. Some four-year institutions require specific courses on top of the required courses listed above. The total number of credits for these required courses plus free electives must equal at least 15.

Total Credit Hours	**60**

Additional information available on the Computer Science Department website at www.pikespeak.edu/programs/computer-science.

Dietetics

Associate of Science Course of Study

Recommended basic skills courses are

- College Readiness in English
- MAT 1340

Dietetics is the science of how food and nutrition affect human health. Careers in dietetics include Certified Dietary Manager, Certified Food Protection Professional (CDM, CFPP), Dietetic Technician Registered (DTR), and Registered Dietitian Nutritionist (RDN).

The Associate of Science in Dietetics prepares students to transfer to an ACEND® Accredited Bachelor or 3+2 Program. Students should note that a graduate degree and dietetic internship are required to become a Registered Dietitian Nutritionist.

Program Learning Outcomes

Upon completion of the Dietetics degree program, students should be able to:

- Assess macro and micronutrient needs for individuals in order to improve health, prevent or delay disease
- Differentiate approaches to make recommendations to meet an individual's health and wellness goals
- Examine the physical, psychosocial, social, and cultural influences on food choices and other health behaviors
- Evaluate nutritional information for reliability and usefulness in analyzing claims
- Apply scientific principles of food handling to food preparation and storage to reduce food-borne illnesses
- Design strategies to manage the personnel, operations, and physical facilities of food service

Written Communication

Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3

Oral Communication

Three (3) credit hours

COM 1150	Public Speaking	3

Mathematics

Three (3) credit hours

MAT 1260	Introduction to Statistics: MA1	3

Arts and Humanities

Six (6) credit hours

Choose two (2) GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4). Full list of requirements can be found on page 83.

History

Three (3) credit hours

Choose one (1) GT Pathways History course (GT-HI1). Full list of requirements can be found on page 83.

Social and Behavioral Sciences

Six (6) credit hours

Choose one (1) GT Pathways Social and Behavioral Sciences courses (SS1, SS2).		3
PSY 1001	General Psychology I: SS3	3

Natural and Physical Sciences
Thirteen (13) credit hours

BIO 1111	General College Biology I w/Lab: SC1	5
BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4

Additional Required Courses
Twenty (20) credit hours

BIO 2104	Microbiology w/Lab: SC1	4
CHE 1111	General College Chemistry I w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5
HWE 1050	Human Nutrition	3
HWE 1055	Lifecycle Nutrition	3
Total Credit Hours		**60**

Certified Dietary Manager Option
Upon successful completion of the Associate of Science in Dietetics and DIT 1023, students will be eligible to take the Certified Dietary Manger, Certified Food Protection Profession (CDM®, CFPP ®) national examination from the Certifying Board of Dietary Managers and the Association of Nutrition and Foodservice Professionals.

DIT 1023	Management for Dietary Managers	4
Total Credit Hours		**64**

Additional information available on the Dietetics Department website at www.pikespeak.edu/programs/nutrition-and-dietetic-technology/dietetics.php.

Environmental Science

Associate of Science Course of Study

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 or MAT 1420
  or
- MAT 1340 and MAT 1440

This degree will prepare students to find innovative and sustainable solutions to today's critical environmental challenges. Students who major in Environmental Science integrate biology, chemistry, geology, geography and mathematics with environmental law, policies, economics, and ethics for an interdisciplinary understanding of the Earth and sustainability. They will develop a deep understanding of scientific theory and know how to apply it in real-world settings. The study of environmental science prepares one for a variety of fields such as Environmental engineering techs, Environmental scientists, Geoscientists, Environmental science and protection techs, environmental science post-secondary teachers, Occupational health, and safety specialists. They may also work as a scientist, analyst, manager, instructor, researcher.

It is strongly recommended that students consult with an advisor for the specific requirements in these fields. Students are strongly encouraged to seek academic advising prior to registration regarding the acceptability of online science courses if they anticipate transferring to a four-year institution or completing graduate work in the sciences or health professions. It should be noted that per Colorado Revised Statute, §23-1-125(1)(e), general education courses taken online are guaranteed to satisfy core course (GT Pathways) requirements at all Colorado public institutions of higher education.

Program Learning Outcomes

Upon completion of the Environmental Science degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings
- Demonstrate proper laboratory techniques and safe practices

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
AND		
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
AND		
ENG 2001	English Composition III: CO3	(3)

Mathematics
Five (5) credit hours

MAT 2410	Calculus I: MA1	5

Arts and Humanities
Six (6) credit hours
Required Course

PHI 2018	Environmental Ethics: AH3	3

Recommended Course
- GT - One GT Pathways Arts and Humanities courses (AH1, AH2, AH4)

History
Three (3) credit hours
Select one of the following

HIS 2000	History of Science and Technology: HI1	3
HIS 2125	American Environmental History: HI1	3
HIS 2135	Colorado History: HI1	3
One (1) additional GT Pathway History (HI1) course		3

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Recommended Courses

COM 2300	Intercultural Communication: SS3	3
GT - One GT Pathways Social and Behavioral Sciences course (SS1, SS2, SS3)		3

Natural and Physical Sciences
Nineteen (19) credit hours

BIO 1111	General College Biology I w/Lab: SC1	5
CHE 1111	General College Chemistry I w/Lab: SC1	5
ENV 1111	Environmental Science w/Lab: SC1	4

AND

Select one of the following

| BIO 1112 | General College Biology II w/Lab: SC1 | 5 |
| CHE 1112 | General College Chemistry II w/Lab: SC1 | 5 |

Additional Required Courses

Eleven (11) credit hours

| GEO 1012 | Physical Geography - Weather, Climate and Ecosystems w/Lab: SC1 | 4 |
| MAT 1260 | Introduction to Statistics: MA1 | 3 |

Select one of the following

GEY 1111	Physical Geology w/Lab: SC1	4
GEY 1112	Historical Geology w/Lab: SC1	4
GEY 1135	Environmental Geology w/Lab: SC1	4
MET 1050	General Meteorology w/Lab: SC1	4

Electives

Four (4) credit hours selected from the AS approved course list can be found on page 84.
BIO, CHE, ENV, or GEY

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

| **Total Credit Hours** | **60** |

Additional information available on the Environmental Science Department website at www.pikespeak.edu/academics/academic-divisions/natural-physical-sciences.

Geology

Associate of Science Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
        or
- MAT 1340 and MAT 1440

This program provides basic preparation in geology for students planning to transfer at the junior level. A study of geology leads to careers in a variety of sub-disciplines such as earth science teaching, petroleum geology, economic geology, mining geology, paleontology, and construction geology. Because of the location of the college in the southern Rockies, field experience is emphasized in all of the offerings.

Program Learning Outcomes

Upon completion of the Geology degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings

Written Communication

Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
	OR	
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
	or	
HIS 2765	Writing About History: CO3	(3)

Mathematics

Five (5) credit hours

| MAT 2410 | Calculus I: MA1 | 5 |

Arts and Humanities

Six (6) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History

Three (3) credit hours. Full list of requirements can be found on page 83.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences

Six (6) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences

Ten (10) credit hours

| CHE 1111 | General College Chemistry I w/Lab: SC1 | 5 |
| CHE 1112 | General College Chemistry II w/Lab: SC1 | 5 |

Additional Required Courses

Twenty-three (23) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

GEY 1111	Physical Geology w/Lab: SC1	4
GEY 1112	Historical Geology w/Lab: SC1	4
MAT 2420	Calculus II: MA1	5
PHY 2111	Physics: Calculus-based I w/Lab: SC1	5
PHY 2112	Physics: Calculus-based II w/Lab: SC1	5

Electives

One (1) credit hour selected from the AS approved course list can be found on page 85.

| **Total Credit Hours** | **60** |

Additional information available on the Geology Department website at www.pikespeak.edu/programs/geology.

Mathematics

Associate of Science Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
        or
- MAT 1340 and MAT 1440

An understanding of mathematics is necessary for the study of many disciplines such as psychology, business, biology, computer science, engineering, physics, chemistry, and statistics. Students

should consult with advisors to ensure that they study the proper curriculum for their respective discipline.

Students may follow the degree with designation in Mathematics or transfer guide in Mathematics to a particular four-year college/university. Consult your Faculty Advisor to assist you in determining the best pathway for you.

Program Learning Outcomes

Upon completion of the Mathematics degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Five (5) credit hours

MAT 2410	Calculus I: MA1	5

Arts and Humanities
Nine (9) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History
Three (3) credit hours. Full list of requirements can be found on page 83.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Ten (10) credit hours

PHY 2111	Physics: Calculus-Based I w/Lab: SC1	5
PHY 2112	Physics: Calculus-Based II w/Lab: SC1	5

Additional Required Courses
Sixteen-seventeen (16-17) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking	3
or		

COM 1250	Interpersonal Communication: SS3	(3)
CSC 1060	Computer Science I: (Language)	4
MAT 2420	Calculus II: MA1	5
MAT 2430	Calculus III: MA1	4
or		
MAT 2431	Calculus III with Engineering Applications: MA1	(5)

CSU-Ft 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.

Electives
Four-five (4-5) credit hours selected from the AS approved course list can be found on page 84.

Total Credit Hours   **60**

Additional information available on the Mathematics Department website at www.pikespeak.edu/programs/mathematics.

Medical Professional Track

Associate of Science Course of Study
Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
    or
- MAT 1340 and MAT 1440

Health professions are necessary to provide comprehensive health care to all types of people. This program is designed to meet the needs of students who wish to go into professional health care positions in dentistry, medicine, veterinary medicine, pharmacy, and chiropractic.

Program Learning Outcomes

Upon completion of the Medical Professional Track degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Oral Communication
Three (3) credit hours

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3

Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category). Full list of requirements can be found on page 83.

Suggested Course

MAT 2410	Calculus I: MA1	5

Arts and Humanities

Six (6) credit hours GT Pathways Arts and Humanities courses from two different areas (AH1, AH2, AH3, AH4)

History

Three (3) credit hours GT Pathways History course (HI1)

Social and Behavioral Sciences

Six (6) credit hours GT Pathways Social and Behavioral Sciences courses from two different areas (SS1, SS2, SS3)

Natural and Physical Sciences

Twelve (12) credit hours. One (2 course) lab sequence in any GT Pathways science discipline (SC1); additional GT Pathways lab science course (SC1). Additional credits over 12 will be included in the electives category. Full list of requirements can be found on page 83.

Suggested Courses

BIO 1111	General College Biology I w/Lab: SC1	5
PHY 1111	Physics: Algebra-Based I w/Lab: SC1	5

Additional Required Courses and Electives

Twenty-one (21) credit hours selected from the AS approved course list can be found on page 83. Please see your advisor for help choosing your electives.

Suggested Courses

CHE 1111	General College Chemistry I w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5
PHY 1112	Physics: Algebra-Based II w/Lab: SC1	5
Total Credit Hours		**60**

Additional information available on the Pre-Med Professions Department website at www.pikespeak.edu/programs/medical-professional.

Physics

Associate of Science Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1420
          or
- MAT 1340 and MAT 1440

Physics is concerned with the nature of energy and matter, space and time. The laws of physics govern everything in the universe from the tiniest bit of matter to the largest star. Physics is a prerequisite to any in-depth study of the sciences and technologies. It leads to careers in engineering, astronomy, astronautics, medical research, geophysics, meteorology, and biophysics. This program provides the necessary background for transfer to a four-year school.

Courses marked with an asterisk [*] are not currently offered at PPSC.

Program Learning Outcomes

Upon completion of the Physics degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
- Select or develop elements of the methodology or theoretical framework to solve problems
- Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus
- Utilize multiple representations to interpret the data
- State a conclusion based on findings

Written Communication

Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics

Five (5) credit hours

MAT 2410	Calculus I: MA1	5

Arts and Humanities

Nine (9) credit hours. Full list of requirements can be found on page 83.
- GT - Two GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)

History

Three (3) credit hours. Full list of requirements can be found on page 83.
- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences

Three (3) credit hours. Full list of requirements can be found on page 83.

GT - One GT Pathways Social and Behavioral Sciences course (SS1, SS2, SS3)		3

Natural and Physical Sciences

Ten (10) credit hours

PHY 2111	Physics: Calculus-Based I w/Lab: SC1	5
PHY 2112	Physics: Calculus-Based II w/Lab: SC1	5

Additional Required Courses

Twenty-four (24) credit hours

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

CHE 1111	General College Chemistry I w/Lab: SC1	5
CSC 1060	Computer Science I: (Language)	4
or		
CHE 1112	General College Chemistry II w/Lab: SC1	(5)
MAT 2420	Calculus II: MA1	5

MAT 2430	Calculus III: MA1	4
or		
MAT 2431	Calculus III with Engineering Applications: MA1	(5)
MAT 2560	Differential Equations: MA1	3
or		
MAT 2561*	Differential Equations with Engineering Applications: MA1	(4)
or		
MAT 2562	Differential Equations with Linear Algebra	(4)
PHY 2113	Physics III: Calculus Based Modern Physics	3
Total Credit Hours		**60**

PLEASE BE ADVISED: If you choose to take one of these courses (MAT 2431, MAT 2561*, MAT 2562), it will put you over 60 credits. The courses will transfer but the extra credits may not. That is, the receiving institution may still require the completion of 60 credits for the major.

- Students planning to transfer to University of Colorado Boulder must take CHE 1112 (not CSC 1060) to fulfill this requirement.
- Students planning to transfer to University of Northern Colorado must take CSC 1060 (not CHE 1112) to fulfill this requirement.
- Students planning to transfer to Fort Lewis College or University of Colorado, Colorado Springs must take both CSC 1060 and CHE 1112.
- Students planning to transfer to a receiving institution not listed here may choose either one of these courses

Additional information available on the Physics Department website at www.pikespeak.edu/programs/physics.

Psychology

Associate of Science Degree with Designation

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

Psychologists study the behavior of individuals and groups and often help individuals achieve satisfactory personal adjustments. Their work includes varied activities such as teaching in colleges and universities, counseling and psychotherapy, psychological testing, planning and conducting training programs for workers, performing basic and applied research, advising on psychological methods and theories, and administering psychology programs in hospitals, clinics, research laboratories, etc. Students pursuing a bachelor's degree in psychology can fulfill lower division requirements at Pikes Peak State College. Students should note that graduate degrees are required for most professional positions in psychology.

NOTE: Psychology majors are advised to complete PSY 1001 and PSY 1002.

The Associate of Science degree is designed for students who want an emphasis in natural sciences, mathematics, computer science, pre-engineering, and allied health and intend to transfer to four-year colleges and universities.

To earn the Associate of Science Degree, students must complete the following course requirements for a total of 60 semester credit hours, at least 36 of which must be Colorado State-Guaranteed Courses.

Students may follow the degree with designation in Psychology or transfer guide in Psychology to a particular four-year college/university. Consult your Faculty Advisor to assist you in determining the best pathway for you.

Program Learning Outcomes

Upon completion of the Psychology degree program, students should be able to:

- Recognize content as specified by the American Psychological Association (APA) Guidelines for the Undergraduate Psychology Major
- Identify research methods as specified by the American Psychological Association (APA) Guidelines for the Undergraduate Psychology Major
- Identify ethical standards of the American Psychological Association (APA)
- Recognize American Psychological Association (APA) citation style

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
OR		
ENG 1022	English Composition II: CO2	(3)
ENG 2001	English Composition III: CO3	(3)
or		
HIS 2765	Writing About History: CO3	(3)

Mathematics
Four (4) credit hours

| MAT 1340 | College Algebra: MA1 | 4 |

Arts and Humanities
Nine (9) credit hours. Full list of requirements can be found on page 83.

PHI 1011	Introduction to Philosophy: AH3	3
or		
PHI 1012	Ethics: AH3	(3)

Six (6) additional credits from at least two different categories of GT Pathways Arts & Humanities courses (AH1, AH2, AH3, AH4)   6

History
Three (3) credit hours. Full list of requirements can be found on page 83.

- GT - One GT Pathways History course (HI1)

Social and Behavioral Sciences
Six (6) credit hours. Full list of requirements can be found on page 83.

- GT - Two GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)

Natural and Physical Sciences
Ten (10) credit hours

| BIO 1111 | General College Biology I w/Lab: SC1 | 5 |
| CHE 1111 | General College Chemistry I w/Lab: SC1 | 5 |

Additional Required Courses
Nine (9) credit hours
Please note: if these credits are not required for the major at a receiving four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. Please check with

the receiving institution to determine in which way these courses will be applied.

COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3

Electives

Thirteen (13) credit hours selected from the AS approved course list can be found on page 84.

Students planning to transfer to University of Colorado Denver should complete both two-semester sequences of BIO 1111 and BIO 1112 and CHE 1111 and CHE 1112 at the community college; in addition, electives are restricted to non-Psychology courses.

Total Credit Hours	**60**

Additional information available on the Psychology Department website at www.pikespeak.edu/programs/psychology.

Associate of General Studies Degree (AGS)

The Associate of General Studies degree provides an educational plan for the student to create a personalized program. It allows the blending of both career and technical and transfer courses without the constraints of specialization. Receiving institutions will accept all applicable credits earned within ten years of transfer to the receiving institution. Credits earned over ten years will be evaluated on a course-by-course basis. Courses must not be developmental.

Requirements

1. 60 credit hours of course work acceptable toward the degree.

2. A cumulative grade point average of 2.0 (a C average).

3. At least 15 of these credit hours must be earned from PPSC.

4. Students consult with an advisor and select 30 semester hours of open electives. Electives may include general education courses and/or career and technical education courses.

5. You must complete at least 30 hours of approved General Education Credits. At least 15 hours must be completed at PPSC.

6. There must be at least 15 credits of GT Pathways courses in the 60 credit hours of the degree

Written Communication (minimum 3 credit hours)

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
ENG 1031	Technical Writing I: CO1	3

Arts and Humanities (minimum 3 credit hours)

GT Pathways Arts and Humanities course (AH1, AH2, AH3, AH4)
    or

ARA 1011	Arabic Language I	5
ARA 1012	Arabic Language II	5
ARA 2011	Arabic Language III	3
ART 1115	History of Photography	3
ASL 1121	American Sign Language I	5
ASL 1122	American Sign Language II	5
CHI 1011	Chinese Language I	5
FRE 1011	French Language I	5
FRE 1012	French Language II	5
GER 1011	German Language I	5
GER 1012	German Language II	5
ITA 1011	Italian Language I	5
ITA 1012	Italian Language II	5
JPN 1011	Japanese Language I	5
JPN 1012	Japanese Language II	5
RUS 1011	Russian Language I	5
RUS 1012	Russian Language II	5
SPA 1011	Spanish Language I	5
SPA 1012	Spanish Language II	5

Mathematics (minimum 3 credit hours)

Any course 1000 level and over

Social and Behavioral Sciences (minimum 3 credit hours)

GT Pathways Social and Behavioral Sciences courses (SS1, SS2, SS3)
    or

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2220	Group Communication: SS3	3
COM 2250	Organizational Communication	3
FIN 1060	Consumer Economics	3

PSY 2332	Psychology of Adjustment	3

Natural and Physical Sciences (minimum 3 credit hours)

GT Pathways Natural and Physical Sciences course (SC1, SC2)
    or

HWE 1050	Human Nutrition	3

Additional General Education Electives (15 credit hours)

To include:
- GT Pathways courses AH1, AH2, AH3, AH4, CO1, CO2, CO3, HI1, MA1, SC1, SC2, SS1, SS2, SS3

BUS 1015	Introduction to Business	3
CIS 1015	Introduction to Computer Information Systems	3
CIS 1018	Introduction to PC Applications	3
CSC 1005	Computer Literacy	3
CSC 1020	Problem Solving with (Software Package)	3

Electives (30 credit hours). Any course 1000 and higher to include AAA 1009.

Emergency Management and Planning

Associate of General Studies Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The AGS in Emergency Management and Planning offers students an option of study to satisfy the associate degree requirements for entry into the PPSC BAS Emergency Service Administration degree without having to complete specific discipline requirements in fire science, emergency medical services, and criminal justice. Students will obtain approximately 30 general education and/or guaranteed transfer credits toward an associate degree as well as 30 additional credits focused on preparation for the BAS Emergency Service Administration degree at Pikes Peak State College. The general education courses are offered both on campus and online, while the EMP and PSM courses are offered online only.

Requirements

1. 60 credit hours minimum of course work.
2. A cumulative grade point average of 2.0 (a C average).
3. Students must take the courses designated for this the AGS/EMP degree plan. Exceptions must be approved by the department chair.

Program Learning Outcomes

Upon completion of the Emergency Management and Planning degree program, students should be able to:

- Assess emergency situations for optimal outcomes
- Analyze the emergency management framework, principles, and body of knowledge in relation to a crisis scenario
- Analyze the geographic configurations of hazards, vulnerabilities, and risks in relation to their impact on sociocultural norms
- Appraise current evolving technologies and their relevant application to practice
- Evaluate interconnections between emergency management disciplines in varying emergency situations

Written Communication
Six (6) credit hours

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3

Mathematics
Four (4) credit hours

MAT 1240	Mathematics for the Liberal Arts: MA1	4

Arts and Humanities
Three (3) credit hours

PHI 1012	Ethics: AH3	3
PHI 1013	Logic: AH3	3
PHI 2005	Business Ethics: AH3	3
PHI 2018	Environmental Ethics: AH3	3

Social and Behavioral Sciences
Three (3) credit hours

COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3

Natural and Physical Sciences
Four (4) credit hours

ENV 1111	Environmental Science w/Lab: SC1	4
GEO 1012	Physical Geography: Weather, Climate & Ecosystems w/Lab: SC1	4
GEY 1135	Environmental Geology w/Lab: SC1	4

Additional Required Courses
Thirty (30) credit hours

CRJ 1025	Policing Systems	3
CRJ 2020	Human Relations & Social Conflict	3
EMP 1001	Emergency Management	3
EMP 1005	Emergency Planning	3
EMP 1006	Exercise Design Evaluation	3
EMP 1007	Emergency Operations Center & Communications	3
EMS 1015	Emergency Medical Responder	3
or		
COM 1150	Public Speaking	(3)
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
JOU 1005	Introduction to Mass Media: SS3	(3)
or		
JOU 1006	Media News & Reporting	(3)
or		
MAN 1025	Team Building	(3)
or		
MAN 2026	Principles of Management	(3)
FST 1002	Principles/Emergency Services	3
PSM 1037	Introduction to Mitigation	3
PSM 2000	National Incident Management System/ Interagency Operations	3

Electives
Ten (10) credit hours

BUS 1015	Introduction to Business	3
CSC 1005	Computer Literacy	3
HWE 1001	Community First Aid & CPR	1
PSC 1011	American Government: SS1	3
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3
PSY 2221	Social Psychology: SS3	3
SOC 1001	Introduction to Sociology I: SS3	3
SOC 1002	Introduction to Sociology II: SS3	3
Total Credit Hours		**60**

Additional information available on the Emergency Management & Planning Department website at www.pikespeak.edu/programs/emergency-management-planning.

Hospitality

Associate of General Studies Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Hospitality AGS degree will prepare the student to both enter the hospitality industry while also completing courses that transfer toward a Bachelor Degree in Hospitality Management at a four-year university. Students will learn skills in business, customer service, operations, supervision, event planning, marketing, accounting, revenue, and facility management.

Requirements:

1. 60 credit hours minimum of course work.
2. A cumulative grade point average of 2.0 (a C average).
3. Students must take the courses designated for the AGS/HOS degree plan. Exceptions must be approved by the department chair.

Program Learning Outcomes

Upon completion of the Hospitality degree program, students should be able to:

- Employ inventory management, purchasing and costing
- Identify the steps for planning and managing various events
- Develop business writing and oral communication reports
- Identify how multiple departments coordinate and interact for optimal results within a property
- Solve hospitality accounting tasks, to include revenue management analysis
- Describe, explain, and identify the facility management of varied departments within multiple types of hospitality establishments

Written Communication
Three (3) credit hours

ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)

Mathematics
Three (3) credit hours

MAT 1260	Introduction to Statistics: MA1	3

Arts and Humanities
Three (3) credit hours

PHI 2005	Business Ethics: AH3	3

Social and Behavioral Sciences
Three (3) credit hours

COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)

Natural and Physical Sciences
Three (3) credit hours

HWE 1050	Human Nutrition	3

Additional Required Courses
Forty-five (45) credit hours

ACC 1001	Fundamentals of Accounting	3
BUS 1015	Introduction to Business	3
BUS 2017	Business Communication & Report Writing	3
CIS 1015	Introduction to Computer Information Systems	3
or		
CIS 1018	Introduction to PC Applications	(3)
or		
CSC 1005	Computer Literacy	(3)
HIS 1120	The World: 1500-Present: HI1	3
or		
GT Pathways History Course		(3)
HOS 1031	Planning for Special Events	3
HOS 1048	Introduction to Food and Beverage	3
HOS 2021	Basic Hotel and Restaurant Accounting	3
HOS 2026	Supervision in the Hospitality Industry	3
HOS 2031	Resort Facilities Management & Design	3
HOS 2051	Hotel Operations	3
HOS 2080	Internship	3
MAR 1060	Customer Service	3
PSC 1025	American State & Local Government	3
SOC 1001	Introduction to Sociology I: SS3	3
Total Credit Hours		60

Additional information available on the Hospitality Department website at www.pikespeak.edu/programs/hospitality.

Associate of Applied Science Degrees (AAS) and Certificates

The two-year AAS degree provides career skills to enable students to enter the job market after graduation, retrain in a new career, or upgrade employment skills. Occupational courses are designed to meet these needs instead of transferring to four-year institutions; however, many four-year institutions accept some of these courses. Check with the receiving institution if planning to transfer these courses.

Occupational training is available in fewer than two years through our certificate programs. Certificates are awarded for several types of training outlined in the next section of this catalog. Certificate programs vary in length from one to three academic terms.

AAS Requirements

1. A minimum of 60 credit hours in a prescribed program of study with a cumulative grade point average of 2.0 (a C average). At least 15 of these credit hours must be earned from PPSC. See specific degree program for additional requirements. Credits must have been earned within 10 years.

2. A minimum of 15 credit hours (of the 60 total) of general education courses from the General Education Electives for AAS Degrees and Certificates list will be chosen by the faculty for specific degrees.

3. Degree is intended to prepare students to enter skilled and/or paraprofessional occupations and is not intended for transfer toward a bachelor's degree; however, some courses may transfer to some institutions. Academic advisors should be consulted for further information.

4. Courses used as electives in meeting degree requirements and taken in addition to those courses specified in a particular program are not accepted toward this degree without approval of the Vice President for Instructional Services. Approval is given only when it is appropriate to the educational objectives of a student.

5. A maximum of four (4) credit hours in any combination of PED activity courses.

6. Specific degree requirements are listed with each program in the next section of this catalog.

7. Courses numbered below 1000 normally may not apply toward degrees.

Certificate Requirements

1. Satisfactory completion of a prescribed program of study with a cumulative grade point average of 2.0 (a C average).

2. A minimum of six (6) credit hours in the area of specialization earned from PPSC for programs requiring six (6) hours or more. Credits must have been earned within 10 years. Credits earned over ten years will be evaluated on a course-by-course basis.

3. Courses numbered below 1000 normally may not apply toward certificate.

General Education Electives for AAS Degrees and Certificates

These courses are approved as meeting the general education electives requirements for the AAS degree.

Arts and Humanities

ARA 1011	Arabic Language I	5
ARA 1012	Arabic Language II	5
ARA 2011	Arabic Language III	3
ART 1110	Art Appreciation: AH1	3
ART 1111	Art History Ancient to Medieval: AH1	3
ART 1112	Art History Renaissance to 1900: AH1	3
ART 1115	History of Photography	3
ASL 1121	American Sign Language I	5
ASL 1122	American Sign Language II	5
CHI 1011	Chinese Language I	5
DAN 1043	Tap I	1
DAN 1044	Tap II	1
DAN 1050	Dance History: AH1	3
DAN 2026	Pointe	1
DAN 2027	Pointe II	1
DAN 2054	Methods of Teaching Dance	2
DAN 2055	Dance for Camera	2
FRE 1001	Conversational French	3
FRE 1011	French Language I	5
FRE 1012	French Language II	5
FRE 2011	French Language III: AH4	3
FRE 2012	French Language IV: AH4	3
GER 1011	German Language I	5
GER 1012	German Language II	5
GER 2011	German Language III: AH4	3
GER 2012	German Language IV: AH4	3
HUM 1003	Introduction to Film Art: AH2	3
HUM 1015	World Mythology: AH2	3
HUM 1021	Early Civilization: AH2	3
HUM 1022	Medieval - Modern: AH2	3
HUM 1023	Modern World: AH2	3
ITA 1011	Italian Language I	5
ITA 1012	Italian Language II	5
ITA 2011	Italian Language III: AH4	3
ITA 2012	Italian Language IV: AH4	3
JPN 1001	Conversational Japanese I	3
JPN 1011	Japanese Language I	5
JPN 1012	Japanese Language II	5
JPN 2011	Japanese Language III: AH4	3
JPN 2012	Japanese Language IV: AH4	3
LIT 1015	Introduction to Literature I: AH2	3
LIT 2001	World Literature to 1600: AH2	3
LIT 2002	World Literature after 1600: AH2	3
LIT 2005	Race, Ethnicity, and Culture in U.S. Literature: AH2	3
LIT 2011	American Literature to Civil War: AH2	3
LIT 2012	American Literature after the Civil War: AH2	3
LIT 2021	British Literature to 1770: AH2	3
LIT 2022	British Literature since 1770: AH2	3
LIT 2046	Literature of Women: AH2	3
LIT 2058	Latinx Literature: AH2	3
LIT 2068	Celtic Literature: AH2	3
MUS 1000	Music Theory Fundamentals I	3
MUS 1005	Introduction to Computer Applications	3
MUS 1020	Music Appreciation: AH1	3
MUS 1021	Music History Medieval thru Classical: AH1	3
MUS 1022	Music History Early Romantic Period to the Present: AH1	3
PHI 1011	Introduction to Philosophy: AH3	3
PHI 1012	Ethics: AH3	3
PHI 1013	Logic: AH3	3
PHI 1014	Comparative Religions: AH3	3
PHI 1015	World Religions-West: AH3	3

PHI 1016	World Religions-East: AH3	3
PHI 1042	New Testament: AH3	3
PHI 2005	Business Ethics: AH3	3
PHI 2014	Philosophy of Religion: AH3	3
PHI 2018	Environmental Ethics: AH3	3
PHO 1043	Perception & Photography	3
PHO 2005	Professional Digital Photo I	3
RUS 1011	Russian Language I	5
RUS 1012	Russian Language II	5
RUS 2011	Russian Language III: AH4	3
RUS 2012	Russian Language IV: AH4	3
SPA 1001	Conversational Spanish I	3
SPA 1002	Conversational Spanish II	3
SPA 1009	Spanish for Travelers	2
SPA 1011	Spanish Language I	5
SPA 1012	Spanish Language II	5
SPA 1015	Spanish for the Professional I	3
SPA 2011	Spanish Language III: AH4	3
SPA 2012	Spanish Language IV: AH4	3
THE 1005	Theatre Appreciation: AH1	3
THE 2011	Development of Theatre Greek-Renaissance: AH1	3
THE 2012	Development of Theatre Restoration to Modern: AH1	3

History
HIS 1110	The World: Antiquity–1650: HI1	3
HIS 1120	The World: 1650–Present: HI1	3
HIS 1210	U.S. History to Reconstruction: HI1	3
HIS 1220	U.S. History since the Civil War: HI1	3
HIS 1310	Western Civilization: Antiquity–1650: HI1	3
HIS 1320	Western Civilization: 1650–Present: HI1	3
HIS 2000	History of Science & Technology: HI1	3
HIS 2015	20th Century World History: HI1	3
HIS 2115	American Indian History: HI1	3
HIS 2130	History of the American West: HI1	3
HIS 2135	Colorado History: HI1	3
HIS 2140	Civil War Era in American History: HI1	3
HIS 2145	U.S. History Since 1945: HI1	3
HIS 2300	The Middle Ages: HI1	3
HIS 2310	The History of Christianity in the World: HI1	3
HIS 2500	History of Islamic Civilization: HI1	3
HIS 2510	Modern Middle East: HI1	3
HIS 2610	History of Modern China: HI1	3

Mathematics
MAT 1120	Math for Clinical Calculations	3
MAT 1140	Career Math	3
MAT 1160	Financial Mathematics	3
MAT 1260	Introduction to Statistics: MA1	3
MAT 1340	College Algebra: MA1	4
MAT 2430	Calculus III: MA1	5
MAT 2431	Calculus III with Engineering Applications: MA1	5

Natural and Physical Sciences
ANT 1005	Biological Anthropology w/Lab: SC1	4
AST 1110	Planetary Astronomy w/Lab: SC1	4
AST 1120	Stellar Astronomy w/Lab: SC1	4
BIO 1004	Biology: A Human Approach: SC1	4
BIO 1005	Science of Biology w/Lab: SC1	4
BIO 1006	Basic Anatomy & Physiology	4
BIO 1048	Basic Ecology	4
BIO 1111	General College Biology I w/Lab: SC1	5
BIO 1112	General College Biology II w/Lab: SC1	5
BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
BIO 2104	Microbiology w/Lab: SC1	4
BIO 2124	Genetics: SC1	4
CHE 1011	Introduction to Chemistry I w/Lab: SC1	5
CHE 1012	Introduction to Chemistry II w/Lab: SC1	5
CHE 1111	General College Chemistry I w/Lab: SC1	5
CHE 1112	General College Chemistry II w/Lab: SC1	5

ENV 1111	Introduction to Environmental Science: SC1	4
GEO 1011	Physical Geography: Landforms w/Lab: SC1	4
GEY 1108	Geology of U.S. National Parks: SC2	3
GEY 1111	Physical Geology w/Lab: SC1	4
GEY 1112	Historical Geology w/Lab: SC1	4
GEY 1135	Environmental Geology w/Lab: SC1	4
HWE 1005	American Heart Association Heartsaver First Aid CPR and AED	0.5
HWE 1050	Human Nutrition	3
PHY 1111	Physics: Algebra-Based I w/Lab: SC1	5
PHY 1112	Physics: Algebra-Based II w/Lab: SC1	5

Social and Behavioral Sciences
ANT 1001	Cultural Anthropology: SS3	3
ANT 1003	Introduction to Archaeology: SS3	3
ANT 1101	Exploring Other Cultures I	3
ANT 2101	Exploring Other Cultures II	3
ANT 2115	Native Peoples of North America: SS3	3
ANT 2125	Anthropology of Religion: SS3	3
ANT 2130	Sex, Gender & Culture: SS3	3
CRJ 1010	Introduction to Criminal Justice: SS3	3
ECO 2001	Principles of Macroeconomics: SS1	3
ECO 2002	Principles of Microeconomics: SS1	3
ECO 2045	Environmental Economics: SS1	3
GEO 1005	World Regional Geography: SS2	3
GEO 1006	Human Geography: SS2	3
JOU 1005	Introduction to Mass Media: SS3	3
PSC 1011	American Government: SS1	3
PSC 1025	American State & Local Government: SS1	3
PSC 1050	Current Political Issues: SS1	3
PSC 2005	International Relations: SS1	3
PSC 2020	Introduction to Political Science: SS1	3
PSY 1001	General Psychology I: SS3	3
PSY 1002	General Psychology II: SS3	3
PSY 1005	Psychology of Workplace Relationships	3
PSY 2332	Psychology of Adjustment	3
PSY 2440	Human Growth & Development: SS3	3
PSY 2771	Psychology of Personality: SS3	3
SOC 1001	Introduction to Sociology I: SS3	3
SOC 1002	Introduction to Sociology II: SS3	3
SOC 2005	Sociology of Family Dynamics: SS3	3
SOC 2016	Sociology of Gender: SS3	3
SOC 2018	Sociology of Diversity: SS3	3
SOC 2020	Sociology of Religion: SS3	3
SOC 2031	The Sociology of Deviant Behavior: SS3	3
WST 2000	Introduction to Women's Studies: SS3	3

Written Communication
COM 1150	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	3
COM 2220	Group Communication: SS3	3
COM 2250	Organizational Communication	3
ENG 1015	Technical English & Communication	3
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
ENG 1031	Technical Writing I: CO1	3
ENG 1032	Technical Writing II	3

Other General Electives
BUS 1015	Introduction to Business	3
CIS 1015	Introduction to Computer Information Systems	3
CIS 1018	Introduction to PC Applications	3
CSC 1020	Problem Solving with (Software Package)	3
REC 1000	Introduction to Recreation	2

Associate of Applied Sciences Degree Programs and Certificates

Accounting

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Graduates of this program are prepared to enter an accounting career. Accountants work for business, industry, and various governmental agencies.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Accounting degree program, students should be able to:

- Perform each of the steps of the accounting cycle
- Apply basic managerial accounting concepts, including costing systems, budgets, and cost-volume-profit analysis
- Apply ethical principles to solve accounting dilemmas
- Perform basic accounting functions using Excel
- Use QuickBooks in a business setting
- Process payroll manually
- Analyze individual taxpayer scenarios in order to prepare Income tax returns, using the current internal revenue code
- Apply basic managerial accounting concepts, including costing systems
- Communicate accounting concepts adequately in written format

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1150	Public Speaking	3
ECO 2001	Principles of Macroeconomics: SS1	3
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
MAT 1160	Financial Mathematics or higher	3
		15

Additional Required Courses

ACC 1015	Payroll Accounting	3
ACC 1021	Accounting Principles I	4
ACC 1022	Accounting Principles II	4
ACC 1025	Computerized Accounting	3
ACC 1031	Income Tax	3
or		
ACC 1032	Tax Help Colorado	(2)
and		
ACC 1033	Tax Help Colorado Practicum	(1)
ACC 2011	Intermediate Accounting I	4
ACC 2026	Cost Accounting	3
BUS 1015	Introduction to Business	3
BUS 2016	Legal Environment of Business	3
BUS 2017	Business Communication & Report Writing	3

CIS 1055	Complete Spreadsheets: (Software package)	3
Elective	Choose nine to ten (9-10) hours from list below	9-10
		45-46
Total Credit Hours		**60-61**

Electives

ACC 1035	Spreadsheet Applications for Accounting	3
ACC 2012	Intermediate Accounting II	4
ACC 2016	Governmental & Not-for-Profit Accounting	3
ACC 2087	Cooperative Education	3
BUS 2026	Business Statistics	3
CIS 2067	Management of Information Systems	3
ECO 2002	Principles of Microeconomics: SS1	3
FIN 2010	Principles of Finance	3
MAN 2000	Human Resource Management I	3
MAN 2026	Principles of Management	3
MAR 2016	Principles of Marketing	3
PHI 1012	Ethics: AH3	3
PHI 2005	Business Ethics: AH3	3

Certificates

Accounting

The accounting certificate program is designed to allow students to become proficient in using the computer for basic bookkeeping and spreadsheet applications. Students will also be prepared to accomplish normal office procedures.

Program Learning Outcomes

Upon completion of the Accounting certificate program, students should be able to:

- Utilize computer applications to perform accounting functions
- Employ basic accounting procedures
- Perform payroll procedures in accordance with applicable laws and regulations
- Analyze and interpret both managerial and financial accounting information
- Prepare federal and state income tax returns for individuals

ACC 1015	Payroll Accounting	3
ACC 1021	Accounting Principles I	4
ACC 1022	Accounting Principles II	4
ACC 1025	Computerized Accounting	3
BUS 1015	Introduction to Business	3
or		
ACC 1032	Tax Help Colorado	(2)
and		
ACC 1033	Tax Help Colorado Practicum	(1)
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
CIS 1055	Complete Spreadsheets: (Software package)	3
MAT 1160	Financial Mathematics or higher	3
Elective	Choose three to four (3-4) hours from list below	3-4
Total Credit Hours		**29-30**

Electives

ACC 1031	Income Tax	3
or		
ACC 1032	Tax Help Colorado	(2)
and		
ACC 1033	Tax Help Colorado Practicum	(1)
ACC 1035	Spreadsheet Applications for Accounting	3
ACC 2087	Cooperative Education	3
BTE 1000	Computer Keyboarding	1
BTE 1008	Ten-Key by Touch	1

BUS 2016	Legal Environment of Business	3
BUS 2017	Business Communication & Report Writing	3
COM 1150	Public Speaking	3
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
FIN 1060	Consumer Economics	3
MAN 1016	Principles of Supervision	3

Bookkeeping Applications

This certificate in bookkeeping applications will familiarize students with the general accounting and computer skills necessary in performing basic bookkeeping duties for small business and personal use.

Program Learning Outcomes

Upon completion of the Bookkeeping Applications certificate program, students should be able to:

- Utilize computer applications to perform accounting and other office functions
- Perform payroll procedures in accordance with applicable laws and regulations
- Use the ten-key and various office application software programs

ACC 1015	Payroll Accounting	3
ACC 1021	Accounting Principles I	4
or		
ACC 1001	Fundamentals of Accounting	(3)
and		
BTE 1008	Ten-Key by Touch	(1)
ACC 1025	Computerized Accounting	3
BUS 1015	Introduction to Business	3
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
Total Credit Hours		**16**

Additional information available on the Accounting Department website at www.pikespeak.ed/programs/accounting.

Allied Health

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This degree program is intended to introduce students to a variety of potential career paths in allied health. Students will complete certifications in several areas including: Phlebotomy, CNA and EMT-Basic. Students are given the opportunity to progress to higher levels of study in multiple medical fields.

Program Learning Outcomes

Upon completion of the Allied Health degree program, students should be able to:

- Describe the health care system
- Apply medical terminology appropriately
- Apply medical clinical skills to a variety of scenarios
- Assist patients in their health care

General Education Courses

COM 1250	Interpersonal Communication: SS3	3
or		
COM 2250	Organizational Communication	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
MAT 1140	Career Math	3
or		
MAT 1160	Financial Mathematics	(3)
PSY 1001	General Psychology I: SS3	3
SPA 1001	Conversational Spanish	3
or		
WOL	World Language Course	(3)
		15

Additional Required Courses

EMS 1021	EMT Fundamentals	3
EMS 1022	EMT Medical Emergencies	4
EMS 1023	EMT Trauma Emergencies	2
EMS 1024	EMT Special Considerations	2
EMS 1070	EMT Clinical	1
HPR 1005	Orientation to Health Careers	3
HPR 1006	Customer Service in Healthcare	2
HPR 1008	Law & Ethics for Health Professionals	2
HPR 1011	CPR for Professionals	0.5
HPR 1020	Phlebotomy	4
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
HPR 2020	Advanced Phlebotomy	4
MOT 1025	Basic Medical Sciences I	3
MOT 1026	Basic Medical Sciences II	3
MOT 1027	Basic Medical Sciences III	3
NUA 1001	Nurse Aide Health Care Skills	4
NUA 1070	Nurse Assistant Clinical Experience	1
NUA 1071	Clinical: Advanced Nurse Aide	1
		46.5
Total Credit Hours		**61.5**

Additional information available on the Allied Health Department website at www.pikespeak.edu/programs/Allied-Health.

Architectural Engineer / Construction Management

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The building construction industry is very broad and encompassing, offering many diverse and satisfying career options where students can explore and discover their fitting involvement. This program provides the technical training and preparation for students to participate as a valuable contributor in architectural, engineering, and construction firms. Alternatively, if the technical training is complemented by marketing skills, the student will obtain a basis to engage in the world of construction product sales. To attend to the wide-ranging career options available, the program has a three-part emphasis, Architectural Engineer, Construction Management, and Product Representative.

Career opportunities include architectural and engineering technician, draftsperson, certified document technician, construction project engineer, quantity surveying and sales. With additional equipping and/or education, additional career options

include licensed professional architect, engineer, landscape designer, urban planner, general contractor, construction estimator, project manager, and building inspector.

This option focuses on sales, advertising, and bidding for product manufacturers. With the appropriate CAD training, this option could include preparation of shop and fabrication drawings attendant to construction materials/products.

Program Learning Outcomes

Upon completion of the Architectural Engineer / Construction Management degree program, students should be able to:

- Read architectural prints, solve common architectural problems, perform and support estimating functions, including national quantity, types, costs and estimates, labor requirements, equipment, and scheduling functions
- Use with efficiency the latest 2D and 3D CAD software programs to create industry-standard architectural drawings, both constructional and presentational using the drafting conventions including symbols, linetypes, lineweights, and dimension styles as applicable to the design discipline
- Draw objects of various orientations as may be prescribed, draw sections and elevations of objects, and identify the relationships of objects or object features to demonstrate interpretation and visualization proficiency using drafting industry standards
- Identify or describe the typical characteristics and uses of common construction materials, products, and systems, document them in drawings, and make appropriate selections based on design project requirements
- Produce a comprehensive set of construction documents using architectural construction drawings to design a residence or small commercial building
- Describe the role and purpose of building codes and standards as they pertain to the life, health, and safety of the public
- Collaborate with other designers or technicians working cooperatively and equitably to overcome challenges of design problems and meet project goals while adapting to different working environments

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 2250	Organizational Communication	3
ENG 1031	Technical Writing I: CO1 or higher	3
MAT 1140	Career Math or higher	3
	Choose three (3) hours from list below	3
		15

Choose three (3) credit hours

PSY 1001	General Psychology I: SS3	3
PSY 1005	Psychology of Workplace Relationships	3
SPA 1001	Conversational Spanish I	3

Additional Required Courses for all Emphasis Areas

AEC 1200	Print Reading Residential/Commercial	3
AEC 1220	Architectural Drawing Theory	4
AEC 1231	Residential Construction Drawing	4
AEC 1520	Construction Material & Systems	3
AEC 1600	Construction Practices & Documents	2
AEC 2300	Sustainable Building Systems	3
AEC 2700	International Building Codes	3
CAD 1104	CAD for Architecture	4
CAD 2220	Revit Architecture	3
		29

Emphasis Areas

Architectural Engineer Technician

Students choosing this option are trained to be paraprofessionals in architectural, engineering, and construction offices with primary skills of architectural drawing and construction assembly technology. Assisting with the design of residential and commercial buildings in an architectural or construction office. Subject matter such as design principles, technical drawing, print reading, construction document organization, and construction materials and methods are included. An architectural job captain will be responsible for organizing all of the drawings and coordinating the building materials and systems specifications.

AEC 1110	History of Architecture	3
AEC 1232	Commercial Construction Drawing	4
AEC 2230	Architectural Design & Development	4
AEC 2930	Professional Seminar & Portfolio	3
CAD 2221	Advanced Revit Architecture	3
		17

Total Credit Hours for Architectural Engineer Technician Degree Emphasis — **61**

Construction Management Technician

Students choosing this option will primarily work for a construction company in an administrative capacity doing estimating, scheduling, project management, construction assembly technology, and job-site problem solving for the building industry. While project managers and engineers work from a main office, project supervisors work out of a field office at the construction site, where they monitor the project and make daily decisions about construction activities.

AEC 2610	Construction Estimating	3
AEC 2630	Construction Scheduling	3
AEC 2650	Construction Project Management	3
AEC 2660	Construction Safety & Loss Prevention	2
AEC 2930	Professional Seminar & Portfolio	3
CAD 2221	Advanced Revit Architecture	3
		17

Total Credit Hours for Construction Management Technician Degree Emphasis — **61**

Product Representative

Students choosing this business-oriented option will learn basic selling and marketing techniques associated with construction materials/products. Other items covered include estimating, bid submittals, and furnishing technical information to professionals in the building industry. This option focuses on sales, advertising, and bidding for product manufacturers. With the appropriate CAD training, this option could include preparation of shop and fabrication drawings attendant to construction materials/products.

AEC 2610	Construction Estimating	3
AEC 2630	Construction Scheduling	3
AEC 2930	Professional Seminar & Portfolio	3
BUS 1015	Introduction to Business	3
BUS 2016	Legal Environment of Business	3
MAR 1011	Principles of Sales	3
MAR 2016	Principles of Marketing	3
		21

Total Credit Hours for Product Representative Degree Emphasis — **65**

Electives

AEC 1232	Commercial Construction Drawing	4
AEC 2080	Internship	3
AEC 2610	Construction Estimating	3

AEC 2630	Construction Scheduling	3
AEC 2660	Construction Safety & Loss Prevention	2
OSH 1311	30-HR Construction Safety	3

Certificates

Architecture Professional

The Architecture Professional certificate is designed to provide students with technical training, preparing them to participate in architectural, engineering, and construction firms. Students learn how to interpret construction drawings; produce a design solution through a combination of research data, conceptual models, drawings, and sketches. Additionally, students learn about restrictions, standards, and requirements that have been established by law to govern the construction of buildings and their materials.

Program Learning Outcomes

Upon completion of the Architecture Professional certificate program, students should be able to:

- Interpret construction documents (e.g., mechanical systems, floor plans, door, and window schedules)
- Solve common architectural problems, perform and support estimating functions, including quantity take-off, estimate types, costs, labor requirements, equipment, and scheduling functions
- Produce residential and small commercial construction drawings based on building specifications (e.g., construction materials, structural systems, building techniques) using 2D AutoCAD and 3D Autodesk Revit software
- Describe the role and purpose of building codes and standards as they pertain to the life, health, and safety of the public
- Produce and present design solutions in a visually artistic and professional manner

AEC 1110	History of Architecture	3
AEC 1200	Print Reading Residential/Commercial	3
AEC 1232	Commercial Construction Drawing	4
AEC 1520	Construction Material & Systems	3
AEC 2230	Architectural Design & Development	4
AEC 2700	International Building Codes	3
AEC 2930	Professional Seminar & Portfolio	3
Total Credit Hours		**23**

Basic AEC Drafting

The Basic AEC Drafting certificate prepare students for employment in architectural, engineering, and construction firms. Students learn about light frame construction techniques, the production of residential construction drawings, residential construction materials, components and systems related to wood frame structures, 2D architectural computer aided drafting skills using the AutoCAD software and how to produce construction document set.

Program Learning Outcomes

Upon completion of the Basic AEC Drafting certificate program, students should be able to:

- Interpret construction documents (e.g., mechanical systems, floor plans, door, and window schedules)
- Produce residential construction drawings based on building specifications (e.g., construction materials, structural systems, building techniques) using 2D AutoCAD and 3D Autodesk Revit software

AEC 1200	Print Reading Residential/Commercial	3
AEC 1220	Architectural Drawing Theory	4
AEC 1231	Residential Construction Drawing	4
CAD 1104	CAD for Architecture	4
CAD 2220	Revit Architecture	3
Total Credit Hours		**18**

Construction Professional

The Construction Professional certificate prepare students for employment in architectural, engineering, and construction firms. Students learn how to interpret construction drawings and estimate the cost of various construction projects. In addition, students learn about building materials, construction techniques, and regulations and standards governing the construction of buildings and their materials.

Program Learning Outcomes

Upon completion of the Construction Professional certificate program, students should be able to:

- Interpret construction documents (e.g., mechanical systems, floor plans, door, and window schedules)
- Solve common architectural problems, perform and support estimating functions, including quantity take-off, estimate types, costs, labor requirements, equipment, and scheduling functions
- Produce residential construction drawings based on building specifications (e.g., construction materials, structural systems, building techniques) using 2D AutoCAD and 3D Autodesk Revit software
- Describe the role and purpose of building codes and standards as they pertain to the life, health, and safety of the public
- Estimate amounts and costs for representative types of construction
- Create construction schedule using the critical path method
- Formulate a construction safety and loss prevention program
- Produce and present design solutions in a visually artistic and professional manner

AEC 1200	Print Reading Residential/Commercial	3
AEC 1520	Construction Material & Systems	3
AEC 2610	Construction Estimating	3
AEC 2630	Construction Scheduling	3
AEC 2660	Construction Safety & Loss Prevention	2
AEC 2700	International Building Codes	3
AEC 2930	Professional Seminar & Portfolio	3
Total Credit Hours		**20**

Additional information available on the Architectural Engineer / Construction Management Department website at www.pikespeak.edu/programs/architecture.

Automotive Collision Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This program prepares students to enter into, or upgrade skills in, auto collision repair. Students have the opportunity to develop skills in non-structural metal repair, structural repair, and all aspects of refinishing. Students who complete a certificate program are prepared to enter into a specific area of the collision

repair industry. The degree program provides students with a broader background and training in all areas of auto collision repair. Students completing either a degree or certificate program should have little difficulty in finding employment. The program utilizes late-model vehicles for training purposes and is certified by the National Institute for Automotive Service Excellence (ASE).

Students must provide their own work clothes and hand tools. A complete set of collision repair tools should be purchased before job entry.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Additionally, students should work with a program faculty advisor to ensure that they are taking the correct classes for their program.

Program Learning Outcomes

Upon completion of the Automotive Collision Technology degree program, students should be able to:

- Follow auto collision shop safety requirements
- Straighten a common dent in preparation for refinish operations
- Prepare an automotive panel for refinish operations
- Perform a refinish blend operation on an automotive panel

General Education Courses
CIS 1018	Introduction to PC Applications	3
COM 2250	Organizational Communication	3
MAT 1140	Career Math	3
Elective	AAS General Education Elective course	6
		15

Additional Required Courses for all Emphasis Areas
ACT 1001	Introduction to Automotive Collision Technology	4
ACT 1011	Metal Welding & Cutting I	3
ACT 1021	Non-Structural Repair Preparation	3
ACT 1022	Panel Repair & Replacements	3
ACT 1023	Metal Finishing & Body Filling	3
ACT 1031	Structural Damage Diagnosis	3
ACT 1042	Surface Preparation I	2
ACT 1043	Spray Equipment Operation	2
ACT 1044	Refinishing I	2
ACT 1051	Plastics & Adhesives I	1
ACT 2032	Automotive Glass Repair	2
ACT 2051	Plastics & Adhesives II	1
		29

Emphasis Areas

Collision
ACT 1024	Replace Weld-On Exterior Panel	3
ACT 1032	Structural Damage Repair	3
ACT 1070	Automotive Collision Technology Lab Experiences I	4
ACT 1080	Automotive Collision Repair Internship Level I	2
ACT 1081	Automotive Collision Repair Level II Internship	2
ACT 2015	Paintless Dent Repair	3
ACT 2026	Production	4
		21
Total Credit Hours for Collision Degree Emphasis		**65**

Customizing
ACT 1060	Custom Painting	3
ACT 1064	Hobbyist Paint & Body	4
ACT 1065	Automotive Body Customizing I	3
ACT 1066	Automotive Body Customizing II	3
ACT 1067	Automotive Body Customizing III	3
ACT 2011	Metal Welding & Cutting II	2
CAD 1100	Print Reading for Computer Aided Drafting	3
CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
		27
Total Credit Hours for Customizing Degree Emphasis		**71**

Estimating
ACT 1072	Automotive Collision Technology Lab Experiences III	4
ACT 1080	Automotive Collision Repair Internship Level I	2
ACT 1081	Automotive Collision Repair Level II Internship	2
ACT 2005	Estimating & Shop Management	3
ACT 2007	Customer Relations & Sales	2
ACT 2026	Production	4
		17
Total Credit Hours for Estimating Degree Emphasis		**61**

Mechanical
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1040	Suspension & Steering I	2
ASE 1041	Suspension & Steering II	2
ASE 2021	Automotive & Diesel Body Electrical	2
ASE 2040	Suspension & Steering III	2
ASE 2065	Heating & Air Conditioning Systems	4
		16
Total Credit Hours for Mechanical Degree Emphasis		**62**

Refinish
ACT 1060	Custom Painting	3
ACT 1071	Automotive Collision Technology Lab Experiences II	4
ACT 1080	Automotive Collision Repair Internship Level I	2
ACT 1081	Automotive Collision Repair Level II Internship	2
ACT 2026	Production	4
ACT 2043	Refinishing II	2
ACT 2044	Final Detail	2
		19
Total Credit Hours for Refinish Degree Emphasis		**63**

Certificates

Customizing Technician

The Customizing Technician Certificate is designed for students to learn a variety of techniques and skills associated with appearance-related and performance related modifications, including bodywork modification, addition of accessories, modification of frame, engine rebuilding and replacement, exhaust system modification, and modification of engine power.

Program Learning Outcomes

Upon completion of the Customizing Technician certificate program, students should be able to:

- Analyze damage to determine appropriate methods for overall repair (e.g., appearance related modifications)
- Inspect, remove, and replace auto parts
- Perform modification of frame
- Complete modifications of vehicles and vehicle parts (e.g., modification of frame)

ACT 1001	Introduction to Automotive Collision Technology	4
ACT 1011	Metal Welding & Cutting I	3
ACT 1021	Non-Structural Repair Preparation	3
ACT 1022	Panel Repair & Replacements	3
ACT 1023	Metal Finishing & Body Filling	3
ACT 1024	Replace Weld-On Exterior Panel	3
ACT 1065	Automotive Body Customizing I	3
ACT 1066	Automotive Body Customizing II	3
ACT 1067	Automotive Body Customizing III	3
ACT 2011	Metal Welding & Cutting II	2
Total Credit Hours		**30**

Estimating & Blueprinting Technician

The Estimating & Blueprinting Technician Certificate is designed for students to learn a variety of skills related to work in automotive shops. Students learn how to prepare, repair, and replace automotive parts, as well as familiarize themselves with damage analysis, extent of damage, and sequence of repair. Students also learn about estimation, shop management, employee safety, and customer relations.

Program Learning Outcomes

Upon completion of the Estimating & Blueprinting Technician certificate program, students should be able to:

- Analyze damage to determine appropriate methods for overall repair
- Inspect, remove, and replace auto parts
- Perform entry-level shop management tasks (e.g., ordering supplies, writing estimates, placing work orders)
- Assist clients through the entire repair process (e.g., customer relations)

ACT 1001	Introduction to Automotive Collision Technology	4
ACT 1021	Non-Structural Repair Preparation	3
ACT 1022	Panel Repair & Replacements	3
ACT 1031	Structural Damage Diagnosis	3
ACT 1080	Automotive Collision Repair Internship Level I	2
ACT 2005	Estimating & Shop Management	3
ACT 2007	Customer Relations & Sales	2
Total Credit Hours		**20**

Non-Structural Repair Technician

The Non-Structural Repair Technician Certificate is designed for students to learn damage analysis as well as a variety of techniques and skills associated with the restoration of damaged exterior panels to original integrity, function, and appearance. Students learn the proper use, selection, and safety procedures for tools and equipment.

Program Learning Outcomes

Upon completion of the Non-Structural Repair certificate program, students should be able to:

- Analyze damage to determine appropriate methods for overall repair (e.g., use of tools and equipment)
- Inspect, remove, and replace auto parts
- Perform restoration of exterior panels

ACT 1001	Introduction to Automotive Collision Technology	4
ACT 1011	Metal Welding & Cutting I	3
ACT 1021	Non-Structural Repair Preparation	3
ACT 1022	Panel Repair & Replacements	3
ACT 1023	Metal Finishing & Body Filling	3
ACT 1024	Replace Weld-On Exterior Panel	3
ACT 1080	Automotive Collision Repair Internship Level I	2
Total Credit Hours		**21**

Plastics Repair Technician

The Plastics Repair Technician Certificate is designed for students to learn damage analysis as well as a variety of techniques and skills associated with the repair of damaged rigid and flexible plastic components. Students will also learn skills used to tint and blend panels, as well as procedures related to special coatings, and sheet molded compounds and proper adhesives.

Program Learning Outcomes

Upon completion of the Plastics Repair Technician certificate program, students should be able to:

- Analyze damage to determine appropriate methods for overall repair
- Inspect, remove, and replace auto parts
- Repair both sheet molded components and flexible plastic components
- Prepare and apply special coating

ACT 1001	Introduction to Automotive Collision Technology	4
ACT 1021	Non-Structural Repair Preparation	3
ACT 1022	Panel Repair & Replacements	3
ACT 1042	Surface Preparation I	2
ACT 1051	Plastics & Adhesives I	1
ACT 2043	Refinishing II	2
ACT 2051	Plastics & Adhesives II	1
Total Credit Hours		**16**

R & I Technician

The R & I (removal and installation) Technician Certificate is designed for students to learn a variety of techniques and skills associated with the adjustment of and removal and installation of automotive parts, fixed glass, modular glass, panels, bumpers, etc. Students also learn about the use of adhesives, sound deadeners and welding methods.

Program Learning Outcomes

Upon completion of the R & I Technician certificate program, students should be able to:

- Analyze damage to determine appropriate methods for overall repair
- Inspect, remove, and replace auto parts
- Remove and replace modular and fixed glass (e.g., adhesive application and sound deadeners)

ACT 1001	Introduction to Automotive Collision Technology	4
ACT 1021	Non-Structural Repair Preparation	3
ACT 1022	Panel Repair & Replacements	3
ACT 2032	Automotive Glass Repair	2
Total Credit Hours		**12**

Refinish Prep Technician

The Refinish Prep Technician Certificate is designed for students to learn a variety of techniques and skills associated with work on motor vehicle surfaces, specifically preparing for the restoration of vehicle finishes following body work. Students also learn how to operate spray equipment, as well as the detailing procedures involved in paint refinishing of vehicles.

Program Learning Outcomes

Upon completion of the Refinish Prep Technician certificate program, students should be able to:

- Prepare surfaces for refinishing (e.g., removal of paint defects)
- Set up and operate spray gun equipment

ACT 1001	Introduction to Automotive Collision Technology	4
ACT 1042	Surface Preparation I	2
ACT 1043	Spray Equipment Operation	2
ACT 1081	Automotive Collision Repair Level II Internship	2
ACT 2044	Final Detail	2
Total Credit Hours		**12**

Refinish Technician

The Refinish Technician Certificate is designed for students to learn a variety of techniques and skills associated with work on motor vehicle surfaces, specifically the preparation and application of paint to vehicles that have been repaired. Students also learn how to operate spray equipment, as well as skills used to tint and blend panels, and detailing procedures involved in paint refinishing of vehicles.

Program Learning Outcomes

Upon completion of the Refinish Technician certificate program, students should be able to:

- Prepare and refinish surfaces
- Set up and operate spray gun equipment
- Perform advanced painting skills (e.g., modifications of base coat/tints, application and blending to adjacent areas)

ACT 1042	Surface Preparation I	2
ACT 1043	Spray Equipment Operation	2
ACT 1044	Refinishing I	2
ACT 1081	Automotive Collision Repair Level II Internship	2
ACT 2043	Refinishing II	2
ACT 2044	Final Detail	2
Total Credit Hours		**12**

Additional information available on the Automotive Collision Technology Department website at www.pikespeak.edu/programs/automotive-collision-technology.

Automotive Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Automotive and Diesel Technology programs lead to an interesting and challenging career in the repair, service, sales, and supply fields. Two degrees are offered in this program: Automotive Technology and Automotive Technology with a Diesel emphasis. The Automotive Technology Degree has a specific focus on automotive service and repair. The Automotive Technology/Diesel emphasis focus is on light duty diesel powered vehicles. i.e.; automotive diesel and light trucks. Students also have the option to pursue a variety of automotive and diesel certificates.

Students entering this program should exhibit the following qualities: mechanical aptitude, ability to read and follow detailed instructions, enjoy precision work and problem solving.

Students are required to provide appropriate work clothing, safety glasses, and a basic set of hand tools. (See automotive program advisors for specifics).

Program Learning Outcomes

Upon completion of the Automotive Technology degree program, students should be able to:

- Diagnose and repair manual drive train systems including vibrations, shifting problems, and noises
- Diagnose and repair general engine concerns, including rough running engines, noises, lack of power and exhaust smoke
- Diagnose and repair starting and charging systems including no cranking, dead battery, alternator faults
- Diagnose and repair braking systems including: Traction control, Anti-lock, Active braking systems

General Education Courses

CIS 1018	Introduction to PC Applications	3
COM 2250	Organizational Communication	3
MAT 1140	Career Math	3
Elective	AAS General Education Elective course	6
		15

Elective hours must meet general education requirements. See list of approved general education courses. Students must consult with advisors for selection of elective courses to enhance their employability.

Emphasis Areas

Automotive Technology

ASE 1002	Introduction to the Automotive Shop	2
ASE 1010	Automotive Brake Service I	2
ASE 1011	Automotive Brake Service II	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1030	General Engine Diagnosis	2
ASE 1032	Ignition System Diagnosis & Repair	2
ASE 1034	Automotive Fuel & Emissions Systems I	2
ASE 1040	Suspension & Steering I	2
ASE 1041	Suspension & Steering II	2
ASE 1050	Manual Drive Train & Axle Maintenance	2
ASE 1051	Automotive Manual Transmission/Transaxles & Clutches I	2
ASE 1052	Manual Transmission, Transaxles & Clutches II	2
ASE 1060	Automotive Engine Repair	2
ASE 1061	Automotive Engine Repair & Rebuild	3
ASE 2010	Automotive Power & ABS Brake Systems	2
ASE 2021	Automotive & Diesel Body Electrical	4
ASE 2031	Automotive Computers & Ignition Systems	2
ASE 2033	Auto Fuel Injection & Emissions Systems II	4
ASE 2035	Driveability & Diagnosis	2
ASE 2040	Suspension & Steering III	2
ASE 2050	Automatic Transmission/Transaxle Service	1
ASE 2065	Heating & Air Conditioning Systems	4
ASE 2182	Internship: General	2
		54

| **Total Credit Hours for Automotive Technology Degree Emphasis** | **69** |

Automotive Technology/Diesel

ASE 1010	Automotive Brake Service I	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1032	Ignition System Diagnosis & Repair	2
ASE 1040	Suspension & Steering I	2
ASE 1051	Automotive Manual Transmission/Transaxles & Clutches I	2
ASE 1061	Automotive Engine Repair & Rebuild	3
ASE 2010	Automotive Power & ABS Brake Systems	2
ASE 2031	Automotive Computers & Ignition Systems	2
ASE 2033	Auto Fuel Injection & Emissions Systems II	4
ASE 2040	Suspension & Steering III	2
ASE 2065	Heating & Air Conditioning Systems	4
DPM 1000	Introduction to Diesel Mechanics	2
DPM 1001	Diesel Shop Orientation	2
DPM 1003	Diesel Engines I	4
DPM 1006	Diesel Fuel Systems	3

DPM 2003	Diesel Engines II	4
DPM 2006	Heavy Duty Brakes I	3
DPM 2007	Heavy Duty Brakes II	3
DPM 2010	Diesel Air Induction & Exhaust	2
DPM 2022	H/D Lighting & Instrumentation	3
		55

Total Credit Hours for Automotive Technology/Diesel Degree Emphasis   **70**

Certificates

Air Conditioning & Heating

The Air Conditioning & Heating Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. The major emphasis is on the diagnosis, troubleshooting, and service of automotive heating and air conditioning systems and their components.

Program Learning Outcomes

Upon completion of the Air Conditioning & Heating certificate program, students should be able to:

- Diagnose and service vehicle heating and air conditioning systems and their components
- Test, service, and repair vehicle starting and charging systems

ASE 1002	Introduction to the Automotive Shop	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 2065	Heating & Air Conditioning Systems	4
Total Credit Hours		**10**

Automatic Transmissions

The Automatic Transmission Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. The major emphasis is on practical methods of maintaining, servicing, and performing adjustments on automatic transmissions and transaxles. Students also learn principles related to hydraulics, power flow, theory of operation, and skills associated with the removal and installation of transmission/transaxle and replacement of components.

Program Learning Outcomes

Upon completion of the Automatic Transmissions certificate program, students should be able to:

- Diagnose, service, and replace automatic transmissions and transaxles
- Test, service, and repair vehicle starting and charging systems

ASE 1002	Introduction to the Automotive Shop	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 2050	Automatic Transmission/Transaxle Service	1
ASE 2051	Automatic Transmission & Transaxle Repair	3
Total Credit Hours		**10**

Automotive Brakes

The Automotive Brakes Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. The major emphasis is on the operation of automotive braking systems, including skills related to diagnosis, service, and repair of disc brakes, drum brakes, and basic hydraulic systems. Students learn to perform service checks and procedures associated with automotive braking systems, including anti-lock braking systems, power assist units, and machine operations of today's automobile.

Program Learning Outcomes

Upon completion of the Automotive Brakes certificate program, students should be able to:

- Diagnose, service, and repair anti-lock braking systems, power assist units, and traction control systems
- Test, service, and repair vehicle starting and charging systems

ASE 1002	Introduction to the Automotive Shop	2
ASE 1010	Automotive Brake Service I	2
ASE 1011	Automotive Brake Service II	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 2010	Automotive Power & ABS Brake Systems	2
Total Credit Hours		**12**

Automotive Electricity

The Automotive Electricity Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. Students also learn about the theory, operation, diagnosis, and repair of vehicle accessories. The major emphasis is on the skills associated with the inspection and testing of typical computerized engine control systems, including ignition systems.

Program Learning Outcomes

Upon completion of the Automotive Electricity certificate program, students should be able to:

- Test, service, and repair vehicle starting and charging systems
- Inspect and test computerized engine controls and ignition systems
- Diagnose, service, and repair automotive and diesel body electrical systems (e.g., starting and charging systems, lighting systems)

ASE 1002	Introduction to the Automotive Shop	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 2021	Automotive & Diesel Body Electrical	4
ASE 2031	Automotive Computers & Ignition Systems	2
Total Credit Hours		**12**

Automotive Parts

The Automotive Parts Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. Students learn about a variety of automotive components (brakes, suspension, steering, transmissions, automotive computers, etc.), as well as the proper methods for completing parts invoices, repair orders, sales receipts, and tickets. In addition, students learn about handling and pricing procedures used in parts areas, warehouse distributors, and retail and wholesale prices.

Program Learning Outcomes

Upon completion of the Automotive Parts certificate program, students should be able to:

- Diagnose and repair electronic fuel injection systems and modern exhaust systems
- Diagnose and repair engines (e.g., block and head assemblies, cylinder head)

- Diagnose and repair manual transmissions, transaxles, and clutches
- Diagnose, service, and repair anti-lock braking systems, power assist units, and traction control systems
- Diagnose, service, and repair automotive and diesel body electrical systems (e.g., starting and charging systems, lighting systems, ignition systems)
- Diagnose, service, and repair suspension and steering systems and wheel alignment issues
- Diagnose and service vehicle heating and air conditioning systems and their components
- Complete forms commonly used in a parts business (e.g., parts invoices, repair orders, sales receipts)

ASE 1002	Introduction to the Automotive Shop	2
ASE 1010	Automotive Brake Service I	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1032	Ignition System Diagnosis & Repair	2
ASE 1034	Automotive Fuel & Emissions Systems I	2
ASE 1040	Suspension & Steering I	2
ASE 1050	Manual Drive Train & Axle Maintenance	2
ASE 1051	Automotive Manual Transmission/Transaxles & Clutches I	2
ASE 1052	Manual Transmission, Transaxles & Clutches II	2
ASE 1060	Automotive Engine Repair	2
ASE 1061	Automotive Engine Repair & Rebuild	3
ASE 2001	Automotive Parts Management I	1
ASE 2010	Automotive Power & ABS Brake Systems	2
ASE 2021	Automotive & Diesel Body Electrical	4
ASE 2031	Automotive Computers & Ignition Systems	2
ASE 2033	Auto Fuel Injection & Emissions Systems II	4
ASE 2040	Suspension & Steering III	2
ASE 2065	Heating & Air Conditioning Systems	4
Total Credit Hours		**44**

Automotive Technology

The Automotive Technology Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. Students learn about a variety of automotive components (brakes, suspension, steering, transmissions, automotive computers, etc.), as well as skills associated with the diagnosis and repair of heating and air conditioning systems, fuel injection and emission systems, engine repair and rebuild, alignment types and procedures, and automotive and diesel body electrical systems.

Program Learning Outcomes

Upon completion of the Automotive Technology certificate program, students should be able to:

- Diagnose and repair electronic fuel injection systems and modern exhaust systems
- Diagnose and repair engines (e.g., block and head assemblies, cylinder head)
- Diagnose and repair manual transmissions, transaxles, and clutches
- Diagnose, service, and repair anti-lock braking systems, power assist units, and traction control systems
- Diagnose, service, and repair automotive and diesel body electrical systems (e.g., starting and charging systems, lighting systems, ignition systems)
- Diagnose, service, and repair suspension and steering systems and wheel alignment issues

- Diagnose and service vehicle heating and air conditioning systems and their components

ASE 1002	Introduction to the Automotive Shop	2
ASE 1010	Automotive Brake Service I	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1032	Ignition System Diagnosis & Repair	2
ASE 1034	Automotive Fuel & Emissions Systems I	2
ASE 1040	Suspension & Steering I	2
ASE 1050	Manual Drive Train & Axle Maintenance	2
ASE 1051	Automotive Manual Transmission/Transaxles & Clutches I	2
ASE 1052	Manual Transmission, Transaxles & Clutches II	2
ASE 1060	Automotive Engine Repair	2
ASE 1061	Automotive Engine Repair & Rebuild	3
ASE 2010	Automotive Power & ABS Brake Systems	2
ASE 2021	Automotive & Diesel Body Electrical	4
ASE 2031	Automotive Computers & Ignition Systems	2
ASE 2033	Auto Fuel Injection & Emissions Systems II	4
ASE 2040	Suspension & Steering III	2
ASE 2065	Heating & Air Conditioning Systems	4
Total Credit Hours		**43**

Engine Performance

The Engine Performance Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. In addition, students learn the skills to diagnose and troubleshoot automotive system repairs, including starting and charging systems, ignition, fuel, and emissions systems, as well as engine rebuilding and repairing, for automotive and diesel systems. Students will learn gain experience in diagnostic techniques and diagnostic scan tools, oscilloscopes, lab scopes, multi-meters, and gas analyzers.

Program Learning Outcomes

Upon completion of the Engine Performance certificate program, students should be able to:

- Diagnose, service, and repair automotive and diesel body electrical systems (e.g., starting and charging systems, lighting systems, ignition systems)
- Diagnose and repair engines (e.g., block and head assemblies, cylinder head)
- Diagnose and repair electronic fuel injection systems and modern exhaust systems
- Diagnose and repair computerized engine controls and ignition systems

ASE 1002	Introduction to the Automotive Shop	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1030	General Engine Diagnosis	2
ASE 1032	Ignition System Diagnosis & Repair	2
ASE 1034	Automotive Fuel & Emissions Systems I	2
ASE 1060	Automotive Engine Repair	2
ASE 1061	Automotive Engine Repair & Rebuild	3
ASE 2021	Automotive & Diesel Body Electrical	4
ASE 2031	Automotive Computers & Ignition Systems	2
ASE 2033	Auto Fuel Injection & Emissions Systems II	4
ASE 2035	Driveability & Diagnosis	2
Total Credit Hours		**29**

Gasoline Engine Repair

The Gasoline Engine Repair Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. The major emphasis is on the service of cylinder head, valve-train components, and components of the cooling system. Students learn about engine removal and reinstallation and re-mounting systems, as well as disassembly, diagnosis, and reassembly of the automotive engine.

Program Learning Outcomes

Upon completion of the Gasoline Engine Repair certificate program, students should be able to:

- Diagnose and repair engines (e.g., block and head assemblies, cylinder head)
- Test, service, and repair vehicle starting and charging systems

ASE 1002	Introduction to the Automotive Shop	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1060	Automotive Engine Repair	2
ASE 1061	Automotive Engine Repair & Rebuild	3
Total Credit Hours		**11**

Manual Drivetrain

The Manual Drivetrain Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. The major emphasis is on the operating principles and repair procedures relating to axle-shaft and universal joints. Students gain skills in the diagnosis and repair of automotive manual transmissions, transaxles and clutches and related components. In addition, students learn to diagnose and repair automotive differentials, four wheel, and all-wheel drive units.

Program Learning Outcomes

Upon completion of the Manual Drivetrain certificate program, students should be able to:

- Test, service, and repair vehicle starting and charging systems
- Diagnose and repair manual transmissions, transaxles, and clutches

ASE 1002	Introduction to the Automotive Shop	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1050	Manual Drive Train & Axle Maintenance	2
ASE 1051	Automotive Manual Transmission/Transaxles & Clutches I	2
ASE 1052	Manual Transmission, Transaxles & Clutches II	2
Total Credit Hours		**12**

Suspension and Steering

The Suspension and Steering Certificate is designed for students to learn the basics of shop safety and common shop equipment. Students learn about vehicle electricity and wiring diagrams, as well as starting and charging systems. The major emphasis is on the diagnosis, inspection, and service of suspension and steering systems used in light trucks and automobiles. Students learn about the operation of steering and power steering systems and includes different alignment types and procedures.

Program Learning Outcomes

Upon completion of the Suspension & Steering certificate program, students should be able to:

- Test, service, and repair vehicle starting and charging systems
- Diagnose, service, and repair suspension and steering systems and wheel alignment issues

ASE 1002	Introduction to the Automotive Shop	2
ASE 1020	Basic Automotive Electricity	2
ASE 1023	Starting & Charging System	2
ASE 1040	Suspension & Steering I	2
ASE 2040	Suspension & Steering III	2
Total Credit Hours		**10**

Additional information available on the Automotive Technology Department website at www.pikespeak.edu/programs/automotive-technology.

Building and Construction Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

A program that prepares individuals to apply technical knowledge and skills to residential and commercial building construction and remodeling. Includes instruction in construction equipment and safety; site preparation and layout; construction estimating; blueprint reading; building codes; framing; masonry; heating, ventilation and AC; electrical and mechanical systems; interior and exterior finishing; and plumbing.

All students should schedule appointments with Building and Construction Technology program advisors before enrolling in class.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Building and Construction Technology degree program, students should be able to:

- Interpret construction documents using industry standards in the building and construction field
- Research, interpret, and apply appropriate building and structural codes in building and construction
- Estimate the materials and labor for a construction project
- Perform hands-on activities integrating other industries for supplementation of skills for residential construction and light commercial construction

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1150	Public Speaking	3
or		
COM 2250	Organizational Communication	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)

MAT 1140	Career Math	3
	Choose three (3) hours from list below	3
		15-16

Choose three (3) credit hours

PSY 1001	General Psychology I: SS3	3
PSY 1005	Psychology of Workplace Relationships	3
SPA 1001	Conversational Spanish I	3

Emphasis Areas

Carpentry

AEC 1200	Print Reading Residential/Commercial	3
AEC 2610	Construction Estimating	3
AEC 2630	Construction Scheduling	3
AEC 2660	Construction Safety & Loss Prevention	2
AEC 2700	International Building Codes	3
CON 1020	Build Materials & Environmental Impact	3
CON 1042	International Residential Code (IRC)	4
CON 1057	National Center for Construction Education & Research Core	5
CON 1058	National Center for Construction Education & Research Carpentry I	6
CON 1059	National Center for Construction Education & Research Carpentry II	6
CON 1060	National Center for Construction Education & Research Carpentry III	6
CON 1061	National Center for Construction Education & Research Carpentry IV	6
CON 2007	Light Construction Equipment	3
CON 2080	Internship	2
or		
CON 2089	Capstone	(1)
OSH 1310	10-HR Construction Industry Standards	1
		55
Total Credit Hours for Carpentry Degree Emphasis		**70**

Electrical

AEC 1200	Print Reading Residential/Commercial	3
AEC 2660	Construction Safety & Loss Prevention	2
CON 1020	Build Materials & Environmental Impact	3
CON 1042	International Residential Code (IRC)	4
CON 1057	National Center for Construction Education & Research Core	5
CON 1062	National Center for Construction Education & Research Electrical I	6
CON 1063	National Center for Construction Education & Research Electrical II	6
CON 1064	National Center for Construction Education & Research Electrical III	6
CON 1065	National Center for Construction Education & Research Electrical IV	6
CON 2080	Internship	2
or		
CON 2089	Capstone	(1)
EIC 1860	National Electrical Code I	4
EIC 1861	National Electrical Code II	4
EIC 2817	Electrical Estimating/Costing	4
OSH 1310	10-HR Construction Industry Standards	1
		55-56
Total Credit Hours for Electrical Degree Emphasis		**70-71**

Masonry

AEC 1200	Print Reading Residential/Commercial	3
AEC 2610	Construction Estimating	3
AEC 2630	Construction Scheduling	3
AEC 2660	Construction Safety & Loss Prevention	2
AEC 2700	International Building Codes	3
CON 1020	Build Materials & Environmental Impact	3

CON 1042	International Residential Code (IRC)	4
CON 1052	National Center for Construction Education & Research Masonry I	6
CON 1053	National Center for Construction Education & Research Masonry II	6
CON 1054	National Center for Construction Education & Research Masonry III	6
CON 1055	National Center for Construction Education & Research Masonry IV	6
CON 1057	National Center for Construction Education & Research Core	5
CON 2007	Light Construction Equipment	3
CON 2080	Internship	1
or		
CON 2089	Capstone	(1)
OSH 1310	10-HR Construction Industry Standards	1
		55
Total Credit Hours for Masonry Degree Emphasis		**70**

Plumbing

AEC 1200	Print Reading Residential/Commercial	3
AEC 2660	Construction Safety & Loss Prevention	2
CON 1020	Build Materials & Environmental Impact	3
CON 1042	International Residential Code (IRC)	4
CON 1057	National Center for Construction Education & Research Core	5
CON 1066	National Center for Construction Education & Research Plumbing I	6
CON 1067	National Center for Construction Education & Research Plumbing II	6
CON 1068	National Center for Construction Education & Research Plumbing III	6
CON 1069	National Center for Construction Education & Research Plumbing IV	6
CON 2080	Internship	1
or		
CON 2089	Capstone	(1)
OSH 1310	10-HR Construction Industry Standards	1
PLU 2007	International Plumbing Code	4
PLU 2008	International Fuel Gas Code	4
PLU 2050	Plumbing Estimating & Costing	4
		55
Total Credit Hours for Plumbing Degree Emphasis		**70**

Certificates

Carpentry Advanced Applications

This Carpentry Advanced Applications Certificate introduces the NCCER Carpentry level three and level four for the advanced skills in the construction trades. Topics include commercial properties of concrete, rigging equipment, rigging practices, trenching and excavating, reinforcing concrete, foundations and slabs-on-grade, vertical formwork, horizontal formwork, handling and placing concrete, and tilt-up wall systems. Additional focus on site layout differential leveling, site layout angular and distance measurement, advanced roof systems, advanced wall systems, advanced stair systems, introduction to construction equipment, introduction to oxyfuel cutting and arc welding, site preparation, and fundamentals of crew leadership.

Program Learning Outcomes

Upon completion of the Carpentry Advanced Applications certificate program, students should be able to:

- Interpret construction documents using industry standards in the advanced carpentry trades (e.g., light commercial, rigging)

- Research, interpret, and apply appropriate building and structural codes in advanced carpentry
- Discuss the restrictions, standards, and requirements governing the construction industry
- Estimate the materials and labor for an advanced carpentry project
- Create construction schedules using the critical path method
- Explain advanced construction techniques required for certification in NCCER Carpentry Level III (e.g., handling concrete, trenching, erecting tilt-up walls) and Level IV (e.g., site preparation, construction equipment, advanced systems such as walls, roofs, and stairs)

AEC 1200	Print Reading Residential/Commercial	3
AEC 2630	Construction Scheduling	3
AEC 2700	International Building Codes	3
CON 1060	National Center for Construction Education & Research Carpentry III	6
CON 1061	National Center for Construction Education & Research Carpentry IV	6
Total Credit Hours		**21**

Carpentry Fundamentals

This Carpentry Fundamentals Certificate introduces NCCER Carpentry level one and level two foundational carpentry skills, basic residential construction systems, the importance of personal and workplace safety, and the role of carpenters within the construction industry. Additional focus on commercial drawings, cold-formed steel framing, exterior finishing, thermal and moisture protection, roofing applications, doors and door hardware, drywall installation, drywall finishing, suspended ceilings, window, door, floor, and ceiling trim, and cabinet installation.

Program Learning Outcomes

Upon completion of the Carpentry Fundamentals certificate program, students should be able to:

- Interpret construction documents using industry standards in the carpentry trades
- Research, interpret, and apply appropriate building and structural codes in carpentry applications
- Discuss requirements associated with the major systems of residential building construction (i.e., mechanical, plumbing, and electrical)
- Explain the fundamentals of the carpentry trades (e.g., construction site safety, hand and power tools, measurements, materials, and applications)
- Estimate the materials and labor for a residential carpentry project
- Explain and perform construction techniques required for certification in NCCER Carpentry Level I (e.g., erecting roofs, installing doors and windows) and Level II (e.g., insulation, drywall application, cabinets installation and trim carpentry)

CON 1042	International Residential Code (IRC)	4
CON 1057	National Center for Construction Education & Research Core	5
CON 1058	National Center for Construction Education & Research Carpentry I	6
CON 1059	National Center for Construction Education & Research Carpentry II	6
Total Credit Hours		**21**

Electrical Advanced Applications

This Electrical Advanced Applications Certificate introduces the NCCER Carpentry level three and level four advanced skills for the electrical trades to include load calculations for branch and feeder circuits, conductor selection and calculations for installation, practical applications of lighting, hazardous locations, overcurrent protection, distribution equipment, transformers, commercial electrical services, motor calculations, voice, data, and video systems, and motor controls. Additional focus on applications specific to health care facilities, standby and emergency systems, basic electronic theory, considerations for fire alarm systems, installing specialty transformers, advanced controls, Heating, Ventilation, and Air Conditioning (HVAC) controls, heat tracing and freeze protection, motor operation and maintenance, medium-voltage terminations/splices, and applications for special locations.

Program Learning Outcomes

Upon completion of the Electrical Advanced Applications certificate program, students should be able to:

- Interpret advanced construction documents using industry standards in the electrical trade with special considerations to fire alarm systems and special facilities (e.g., schools and healthcare facilities)
- Research, interpret, and apply appropriate building and structural codes in advanced electrical applications (e.g., standby and emergency systems)
- Discuss the restrictions, standards, and requirements governing the electrical industry
- Formulate a construction safety and loss prevention program
- Estimate the materials and labor for an advanced electrical installation project
- Explain advanced electrical techniques required for certification in NCCER Electrical Level III (e.g., overcurrent protection, transformer installation) and Level IV (e.g., advanced controls, motor operation and maintenance)

AEC 2660	Construction Safety & Loss Prevention	2
CON 1064	National Center for Construction Education & Research Electrical III	6
CON 1065	National Center for Construction Education & Research Electrical IV	6
EIC 1861	National Electrical Code II	4
EIC 2817	Electrical Estimating/Costing	4
Total Credit Hours		**22**

Electrical Fundamentals

This Electrical Fundamentals certificate introduces the NCCER Electrical level one and level two fundamentals of electrical trades and practices in residential application. Topics include orientation to the electrical trade, electrical safety, basic electrical circuits, electrical theory, introduction to the National Electrical Code (NEC), device boxes, raceways and fittings, conductors and cables, basic electrical construction drawings, residential electrical services, electrical test equipment, and basic installation techniques. Additional focus on alternating current, theory and application, electric lighting, conduit bending, pull and junction boxes, conductor installations, cable tray, conductor terminations and splices, grounding and bonding, circuit breakers and fuses, and control systems and fundamental concepts.

Program Learning Outcomes

Upon completion of the Electrical Fundamentals certificate program, students should be able to:

- Interpret construction documents using industry standards in the electrical trades
- Research, interpret, and apply appropriate building and structural codes in electrical applications
- Explain the fundamentals of the electrical trade (e.g., electrical theory and basic electricity, site safety, tools of the trade, measurements, materials, application, and installation)
- Estimate the materials and labor for a residential electrical installation project
- Explain and perform electrical skill techniques required for certification in NCCER Electrical Level I (e.g., safety procedures, electrical tests) and Level II (e.g., conductor installation, grounding and bonding, circuit breakers and fuses)

CON 1057	National Center for Construction Education & Research Core	5
CON 1062	National Center for Construction Education & Research Electrical I	6
CON 1063	National Center for Construction Education & Research Electrical II	6
EIC 1860	National Electrical Code I	4
Total Credit Hours		**21**

Masonry Advanced Applications

This Masonry Advanced Applications Certificate introduces the NCCER Carpentry level three advanced skills for the masonry trades to include elevated masonry, specialized materials and techniques, repair and restoration, commercial drawings, estimating, site layout, distance measurement and leveling, and stone masonry. Additional focus to include estimating and scheduling installation types.

Program Learning Outcomes

Upon completion of the Masonry Advanced Applications certificate program, students should be able to:

- Interpret construction documents using industry standards in the advanced masonry trades (e.g., elevated masonry, repair and restoration light commercial)
- Research, interpret, and apply appropriate building and structural codes in advanced masonry
- Discuss the restrictions, standards, and requirements governing the masonry industry
- Estimate the materials and labor for an advanced masonry project
- Create construction schedules for masonry projects
- Explain and perform advanced masonry techniques required for certification in NCCER Masonry Level III (e.g., decorative and structural columns, corners, archways, lintels)

AEC 1200	Print Reading Residential/Commercial	3
AEC 2610	Construction Estimating	3
AEC 2630	Construction Scheduling	3
CON 1054	National Center for Construction Education & Research Masonry III	6
CON 1055	National Center for Construction Education & Research Masonry IV	6
Total Credit Hours		**21**

Masonry Fundamentals

This Masonry Fundamentals Certificate introduces the NCCER Plumbing level one and level two fundamentals of masonry trades and practices in residential application to include the fundamentals of basic masonry materials, equipment and tools, mathematical concepts used to calculate masonry units, specifications, codes, mortar, installation techniques, safety, and the career of masonry. Additional focus on residential plans and drawing interpretation, residential masonry, reinforced masonry, masonry openings and metal work, advanced laying techniques, effects of climate on masonry, and construction inspection and quality control.

Program Learning Outcomes

Upon completion of the Masonry Fundamentals certificate program, students should be able to:

- Interpret construction documents using industry standards in the masonry trades
- Research, interpret, and apply appropriate building and structural codes in masonry applications
- Explain the fundamentals of the masonry trade (e.g., materials and equipment, site safety, hand and power tools of the trade, measurement and calculations, effects of climate on masonry, various applications, and installation)
- Estimate the materials and labor for a residential masonry project
- Explain and perform masonry installation techniques required for certification in NCCER Masonry Level I (e.g., safety procedures, proper mortar, laying techniques, control joints cutting of material) and Level II (e.g., masonry openings and metal work)

CON 1042	International Residential Code (IRC)	4
CON 1052	National Center for Construction Education & Research Masonry I	6
CON 1053	National Center for Construction Education & Research Masonry II	6
CON 1057	National Center for Construction Education & Research Core	5
Total Credit Hours		**21**

Plumbing Advanced Applications

This Plumbing Advanced Applications Certificate introduces the NCCER Plumbing level three and level four advanced skills for the plumbing trades to include applied math, sizing and protecting the water supply system, potable water Supply treatment, types of venting, sizing Drain, Waste, and Vent (DWV) and storm systems, sewage sumps and sump pump, corrosive-resistant waste piping, compressed air, and service plumbing. Additional focus on business principles for plumbers, introductory skills for the crew leader, water pressure booster and recirculation systems, indirect and special waste, and hydronic and solar heating systems and practices for plumbing.

Program Learning Outcomes

Upon completion of the Plumbing Advanced Applications certificate program, students should be able to:

- Interpret construction documents using industry standards in the advanced plumbing trades (e.g., sizing and protecting the water supply system, potable water Supply treatment, hydronic and solar heating systems)
- Research, interpret, and apply appropriate building and structural codes in advanced plumbing

- Discuss the restrictions, standards, and requirements governing the plumbing industry
- Apply the international fuel gas code requirements to plumbing systems
- Estimate the materials and labor for an advanced plumbing project
- Formulate a construction safety and loss prevention program
- Explain advanced plumbing techniques required for certification in NCCER Plumbing Level III (e.g., repairing water supply systems, installing water-conditioning equipment) and Level IV (e.g., hydronic and solar heating systems, installing swimming pool systems)

AEC 2660	Construction Safety & Loss Prevention	2
CON 1068	National Center for Construction Education & Research Plumbing III	6
CON 1069	National Center for Construction Education & Research Plumbing IV	6
PLU 2008	International Fuel Gas Code	4
PLU 2050	Plumbing Estimating & Costing	4
Total Credit Hours		**22**

Plumbing Fundamentals

This Plumbing Fundamentals Certificate introduces the NCCER Plumbing level one and level two fundamentals of plumbing trades and practices in residential application to include common types of piping, their proper fitting, fixtures, distribution systems, construction drawings; plastic, copper, cast-iron, and carbon steel piping; fixtures and faucets; introduction to Drainage, Waste, and Vent (DWV) systems; and water distribution systems. Additional focus on offsets around obstructions, reading commercial drawings, installing and testing Drainage, Waste, and Vent (DWV) piping systems, installing roof, floor and area drains, servicing various types of valves, installation of fixtures, faucets, hot water systems and a discussion on fuel systems.

Program Learning Outcomes

Upon completion of the Plumbing Fundamentals certificate program, students should be able to:

- Interpret construction documents using industry standards in the plumbing trades
- Research, interpret, and apply appropriate building and structural codes in plumbing applications
- Explain the fundamentals of the plumbing trades (e.g., site safety, hand and power tools, measurements drawings, materials, drainage, and water distribution systems)
- Estimate the materials and labor for a residential plumbing project
- Explain and perform plumbing skill techniques required for certification in NCCER Plumbing Level I (e.g., piping, drainage, fixture installation) and Level II (e.g., installing hot water systems, servicing valves)

CON 1057	National Center for Construction Education & Research Core	5
CON 1066	National Center for Construction Education & Research Plumbing I	6
CON 1067	National Center for Construction Education & Research Plumbing II	6
PLU 2007	International Plumbing Code	4
Total Credit Hours		**21**

Additional information available on the Building and Construction Technology Department website at www.pikespeak.edu/programs/building-construction-technology.

Business Administration

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Students may select from various programs to meet their specific career goals. Certificate programs can be completed in one year or less in the areas of Administrative Assistant, Business Foundations, Management and Social Innovation.

Two-year Associate of Applied Science degrees are available in several emphasis areas as detailed in the following section of this catalog. Transfer degrees intended to prepare the student for transfer to four-year institutions are also offered. Business students interested in transferring to a four-year university should refer to the Associate of Arts Degree in Business.

Faculty advisors are available to assist students in evaluating the various options. Call 719-502-3300 at the Centennial Campus or 719-502-3215 at the Rampart Range Campus for program information or to schedule a personal appointment with a business program faculty advisor.

This degree program is designed for students who wish to pursue a career in business with a specific area of emphasis.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of Business Administration degree program, students should be able to:

- Analyze contemporary business concepts
- Apply comprehension of business terminology in deliverables
- Compare different economic philosophies
- Perform library research, analytical, and business writing/oral communication skills

General Education Requirements

CIS 1018	Introduction to PC Applications	3
COM 1150	Public Speaking	3
ECO 2001	Principles of Macroeconomics: SS1	3
or		
ECO 2002	Principles of Microeconomics: SS1	(3)
ENG 1021	English Composition I: CO1	3
MAT 1160	Financial Mathematics	3
		15

Business Foundation course requirements for all emphasis areas

ACC 1001	Fundamentals of Accounting	3
or		
ACC 1021	Accounting Principles I	(4)
BUS 1015	Introduction to Business	3
FIN 1060	Consumer Economics	3
MAN 1028	Human Relations in Organizations	3
MAR 1060	Customer Service	3
		15-16

NOTE: Completion of the 30-31 hours in General Education and Business Foundation courses earns the student a Business Foundations Certificate.

Emphasis Areas

Administrative Support

The Administrative Support Emphasis is designed to prepare students to become office professionals in positions that require skills in computer technology, communication skills, customer service, and office applications.

BTE 1002	Keyboarding Applications I	2
BTE 1008	Ten-Key by Touch	1
BTE 1011	Keyboarding Speedbuilding I	2
BTE 1066	Business Editing Skills	3
BUS 2017	Business Communication & Report Writing	3
CIS 1035	Complete Word Processing	3
CIS 1040	Microsoft Outlook	1
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 1065	Complete Presentation Graphics	3
MAN 2046	Critical Issues in Marketing & Management	3
Electives	Choose six (6) hours from list below	6
		30
Total Credit Hours for Administrative Support Emphasis		**60-61**

Administrative Support Emphasis Electives

ACC 1015	Payroll Accounting	3
ACC 1025	Computerized Accounting	3
BTE 1087	Cooperative Education/Internship	3
CIS 1024	Introduction to Operating Systems	3
CIS 1045	Introduction to Desktop Database	3
CWB 1010	Introduction to Web Authoring	3
MAN 1016	Principles of Supervision	3
MAN 2000	Human Resource Management I	3

Management

The Management Emphasis is designed for those students whose career path or occupational goal includes working in a corporate organizational structure as a manager of a particular department or functional area.

BUS 1081	Internship	3
or		
MAN 1016	Principles of Supervision	(3)
BUS 2016	Legal Environment of Business	3
BUS 2017	Business Communication & Report Writing	3
BUS 2026	Business Statistics	3
FIN 2010	Principles of Finance	3
MAN 2000	Human Resource Management I	3
MAN 2026	Principles of Management	3
MAN 2040	Strategic Management	3
MAN 2046	Critical Issues in Marketing & Management	3
MAR 2016	Principles of Marketing	3
		30
Total Credit Hours for Management Emphasis		**60-61**

Social Innovation

The Social Innovation Emphasis is designed to prepare students to become socially involved business professionals who will bring business operations, marketing, and management skills into a not-for-profit business and socially responsible impact skills into a for-profit business.

BUS 2016	Legal Environment of Business	3
BUS 2026	Business Statistics	3
BUS 2089	Capstone	3
MAN 2040	Strategic Management	3
MAR 2016	Principles of Marketing	3
PHI 2005	Business Ethics: AH3	3
SOC 2018	Sociology of Diversity: SS3	3
Electives	Choose nine (9) hours from list below	9
		30
Total Credit Hours for Social Innovation Emphasis		**60-61**

Social Innovation Emphasis Electives

AEC 2300	Sustainable Building Systems	3
ANT 1001	Cultural Anthropology: SS3	3
ANT 2125	Anthropology of Religion: SS3	3
ANT 2130	Sex, Gender, & Culture: SS3	3
ANT 2550	Medical Anthropology: SS3	3
AST 1140	Astronomy Ancient Cultures: SC2	3
CAR 1003	Carpentry Basics	4
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3
ECE 2051	Nutrition, Health & Safety	3
EMP 1001	Principles of Emergency Management	3
ENP 1005	Introduction to Entrepreneurship	3
ENV 1111	Introduction to Environmental Science: SC1	3
ETH 2024	Introduction to Chicano Studies	3
GEO 1006	Human Geography: SS2	3
GEY 1135	Environmental Geology w/Lab: SC1	4
HIS 2005	Women in World History: HI1	3
HIS 2105	Women in U.S. History: HI1	3
HIS 2110	African American History: HI1	3
HIS 2115	American Indian History: HI1	3
HIS 2500	History of Islamic Civilization: HI1	3
HIS 2610	History of Modern China: HI1	3
HWE 1050	Human Nutrition	3
JOU 2025	New Media	3
JOU 2031	Introduction to Public Relations	3
MAN 2016	Small Business Management	3
OUT 1200	Wilderness Ethics	2
OUT 1570	Basic Search & Rescue	3
PHI 1012	Ethics: AH3	3
PHI 1014	Comparative Religions: AS3	3
PHI 1015	World Religions-West: AH3	3
PHI 1016	World Religions-East: AH3	3
PHI 2018	Environmental Ethics: AH3	3
PSC 2005	International Relations: SS1	3
PSY 1005	Psychology of Workplace Relationships	3
PSY 2105	Psychology of Gender: SS3	3
PSY 2107	Human Sexuality: SS3	3
PSY 2221	Social Psychology: SS3	3
PSY 2222	The Psychology of Death & Dying: SS3	3
PSY 2441	Child Development: SS3	3
PSY 2551	Child Abuse & Neglect	3
SWK 1000	Introduction to Social Work	3
WOL	World Language	3
WST 2000	Introduction to Women`s Studies: SS3	3

Certificates

Administrative Assistant

This certificate program is designed to prepare students to become office professionals in positions that require skills in computer technology, communication skills, customer service, and office applications.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Administrative Assistant certificate program, students should be able to:

- Use computer technology, office applications, and the ten-key pad
- Communicate business ideas and information in a variety of formats
- Employ skills and techniques that create positive customer experiences

BTE 1002	Keyboarding Applications I	2
BTE 1008	Ten-Key by Touch	1
BTE 1011	Keyboarding Speedbuilding I	2
BTE 1066	Business Editing Skills	3
BUS 1015	Introduction to Business	3
BUS 2017	Business Communication & Report Writing	3
CIS 1035	Complete Word Processing	3
CIS 1040	Microsoft Outlook	1
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 1065	Complete Presentation Graphics	3
MAR 1060	Customer Service	3
Electives	Choose three (3) hours from list below	3
Total Credit Hours		**30**

Administrative Assistant Electives

ACC 1001	Fundamentals of Accounting	3
ACC 1015	Payroll Accounting	3
ACC 1021	Accounting Principles I	4
ACC 1025	Computerized Accounting	3
BTE 1087	Cooperative Education/Internship	3
CIS 1024	Introduction to Operating Systems	3
CIS 1045	Introduction to Desktop Database	3
CWB 1010	Introduction to Web Authoring	3
MAN 1016	Principles of Supervision	3
MAN 2000	Human Resource Management I	3
MAN 2046	Critical Issues in Marketing & Management	3

Business Foundations

This certificate will allow students exposure to most of the major areas of business. Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Business Foundations certificate program, students should be able to:

- Apply the principles of accounting and financial mathematics in a business organization
- Apply fundamental business principles to real-world scenarios
- Communicate effectively with clients and co-workers
- Distinguish between principles of macroeconomics and microeconomics
- Employ skills and techniques that create positive customer experiences
- Use a variety of computer technology and office applications

ACC 1001	Fundamentals of Accounting	3
or		
ACC 1021	Accounting Principles I	(4)
BUS 1015	Introduction to Business	3
CIS 1018	Introduction to PC Applications	3
COM 1150	Public Speaking	3

ECO 2001	Principles of Macroeconomics: SS1	3
or		
ECO 2002	Principles of Microeconomics: SS1	(3)
ENG 1021	English Composition I: CO1	3
FIN 1060	Consumer Economics	3
MAN 1028	Human Relations in Organizations	3
MAR 1060	Customer Service	3
MAT 1160	Financial Mathematics	3
Total Credit Hours		**30-31**

Management

The Management certificate program is designed for those students whose career path or occupational goal includes working in a corporate organizational structure as a manager of a particular department or functional area.

Program Learning Outcomes

Upon completion of the Management certificate program, students should be able to:

- Communicate business ideas and information in a variety of formats
- Integrate the four basic functions of management to develop business strategies
- Analyze legal, ethical, and regulatory issues impacting business operations
- Apply basic principles of statistics to support business decisions
- Apply principles of marketing for businesses and consumers

BUS 1081	Internship	3
or		
MAN 1016	Principles of Supervision	(3)
BUS 2016	Legal Environment of Business	3
BUS 2017	Business Communication & Report Writing	3
BUS 2026	Business Statistics	3
FIN 2010	Principles of Finance	3
MAN 2000	Human Resource Management I	3
MAN 2026	Principles of Management	3
MAN 2040	Strategic Management	3
MAN 2046	Critical Issues in Marketing & Management	3
MAR 2016	Principles of Marketing	3
Total Credit Hours		**30**

Social Innovation

The Social Innovation Certificate is designed to prepare students to become socially involved business professionals who will bring business operations, marketing, and management skills into a not-for-profit business and socially responsible impact skills into a for-profit business.

Program Learning Outcomes

Upon completion of the Social Innovation certificate program, students should be able to:

- Interpret laws and regulations associated with business
- Employ business statistics
- Apply strategic management to achieve competitive advantage
- Apply principles of marketing for businesses and consumers
- Use ethical decision making in a business environment

BUS 2016	Legal Environment of Business	3
BUS 2026	Business Statistics	3
BUS 2089	Capstone	3
MAN 2040	Strategic Management	3
MAR 2016	Principles of Marketing	3

PHI 2005	Business Ethics: AH3	3
SOC 2018	Sociology of Diversity: SS3	3
Electives	Choose nine (9) hours from list below	9
Total Credit Hours		**30**

Electives

AEC 2300	Sustainable Building Systems	3
ANT 1001	Cultural Anthropology: SS3	3
ANT 2125	Anthropology of Religion: SS3	3
ANT 2130	Sex, Gender, & Culture: SS3	3
ANT 2550	Medical Anthropology: SS3	3
AST 1140	Astronomy Ancient Cultures: SC2	3
CAR 1003	Carpentry Basics	4
COM 1250	Interpersonal Communication: SS3	3
COM 2300	Intercultural Communication: SS3	3
ECE 2051	Nutrition, Health & Safety	3
EMP 1001	Principles of Emergency Management	3
ENP 1005	Introduction to Entrepreneurship	3
ENV 1111	Introduction to Environmental Science: SC1	3
ETH 2024	Introduction to Chicano Studies	3
GEO 1006	Human Geography: SS2	3
GEY 1135	Environmental Geology w/Lab: SC1	4
HIS 2005	Women in World History: HI1	3
HIS 2105	Women in U.S. History: HI1	3
HIS 2110	African American History: HI1	3
HIS 2115	American Indian History: HI1	3
HIS 2500	History of Islamic Civilization: HI1	3
HIS 2610	History of Modern China: HI1	3
HWE 1050	Human Nutrition	3
JOU 2025	New Media	3
JOU 2031	Introduction to Public Relations	3
MAN 2016	Small Business Management	3
OUT 1200	Wilderness Ethics	2
OUT 1570	Basic Search & Rescue	3
PHI 1012	Ethics: AH3	3
PHI 1014	Comparative Religions: AS3	3
PHI 1015	World Religions-West: AH3	3
PHI 1016	World Religions-East: AH3	3
PHI 2018	Environmental Ethics: AH3	3
PSC 2005	International Relations: SS1	3
PSY 1005	Psychology of Workplace Relationships	3
PSY 2105	Psychology of Gender: SS3	3
PSY 2107	Human Sexuality: SS3	3
PSY 2221	Social Psychology: SS3	3
PSY 2222	The Psychology of Death & Dying: SS3	3
PSY 2441	Child Development: SS3	3
PSY 2551	Child Abuse & Neglect	3
SWK 1000	Introduction to Social Work	3
WOL	World Language	3
WST 2000	Introduction to Women`s Studies: SS3	3

Additional information available on the Business Department website at www.pikespeak.edu/programs/business.

Computer Aided Drafting and Design - Mechanical

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Computer Aided Drafting (CAD) program prepares students to enter the workforce as a skilled CAD technician for who are equipped with a solid foundation for drafting positions in manufacturing, engineering, and other areas requiring production-ready drawings and 3-dimensional or 3D printed models. Students will learn to prepare 2D and 3D projects for fabrication using the latest releases of multiple CAD software. In addition, students will acquire skills in subject matter of design principles, industry standards, fabrication materials, manufacturing applications, tolerance methods and analysis, problem-solving techniques, and general organizational skills.

Career opportunities include drafting and engineering technician, project technician, design technician, draftsperson, and certified document technician. These career options play a critical role in product planning and the design of assembly parts and products which are to be fabricated and produced. With additional equipping and/or education, additional career options include mechanical engineer, commercial or industrial designer, civil engineer, product designer, and project designer.

Degree opportunities are:

CAD Mechanical Emphasis- this emphasis students are trained to be CAD technicians in manufacturing, engineering, fabrication, and other areas requiring production-ready drawings and solid 3-dimensional models. Assisting with the design of residential and commercial buildings in an architectural or construction office. Subject matter such as design principles, technical drawing, print reading, product documentation, and fabrication materials and methods are included.

Program Learning Outcomes

Upon completion of the program Computer Aided Drafting–Mechanical, Mechanical Emphasis degree program, students should be able to:

- Develop and produce a technical engineering assembly drawing applying current industry standards for manufacturing
- Analyze part function and relationship to each other including tolerance of parts for assemblies while calculating and applying mating part conditions for a guaranteed assembly fit
- Develop and produce rapid prototypes using additive manufacturing technology and appropriate 3D printing material

CAD Robotics and Automation Emphasis - this emphasis students are prepared for entry level careers as a CAD technician in the robotics and automation field. Graduates become qualifies to work in electronic automation and in control systems environments. Students in this program are trained on the principles behind robotic and automation technology while focusing on principles of robotics, design, programming, operation of robotic systems, and robotics system maintenance topics such as programmable logic controllers, sensors and transducers, and fundamentals of DC/AC.

Program Learning Outcomes

Upon completion of the program Computer Aided Drafting–Mechanical, Robotics & Automation Emphasis degree program, students should be able to:

- Interpret and produce industrial 2D working drawings and 3D models based on industry standards
- Use the SolidWorks software package to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Produce parts and assemblies using additive manufacturing with 3D printing
- Construct, test, and troubleshoot electronic and digital circuits

- Solder electronic components on circuit boards
- Program, maintain, and troubleshoot robotic system
- Explain the architecture, hardware, programming languages, and input and output capabilities of microcontrollers
- Program a microcontroller to execute code
- Construct, test, and evaluate basic industrial control systems in robotic and automation technology

CAD HVAC Emphasis- this emphasis students are prepared for entry level careers as a CAD technician in the heating, air conditioning and refrigeration field. This field of work involves different trade disciplines in residential and commercial heating, ventilation, air conditioning, and refrigeration. This includes drafting technician positions in mechanical, electrical, and heating systems while learning basic refrigeration, fundamentals of gas heating, and electricity for HVAC systems for both residences, and large facilities.

Program Learning Outcomes

Upon completion of the program Computer Aided Drafting–Mechanical, HVAC Emphasis degree program, students should be able to:

- Interpret and produce industrial 2D working drawings and 3D models based on industry standards
- Use the SolidWorks software package to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Explain basic theory and components of refrigeration systems
- Calculate current, voltage, and power in AC and DC circuits
- Apply computations of circuit analysis and troubleshooting with basic test equipment
- Discuss basics of gas heating systems, operation of gas valves and burners, to include gas pipe system design
- Apply basic code requirements for heating systems
- Examine the operation of hot water heating systems, to include installation, maintenance, and repair

Interested students should schedule appointments with CAD program advisor prior to enrolling. Students may address and complete prerequisite requirements with the beginning program courses. Students not meeting a course prerequisite must have prior permission in order to enroll in the course.

General Education Courses

BUS 1015	Introduction to Business	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
PSY 1005	Psychology of Workplace Relationships	(3)
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 2250	Organizational Communication	3
ENG 1031	Technical Writing I: CO1 or higher	3
MAT 1140	Career Math or higher	3
		15

Additional Required Courses (all emphasis areas)

CAD 1100	Print Reading for Computer Aided Drafting	3
or		
EGT 1100	Print Reading	(3)
CAD 1101	Computer Aided Drafting/2D I	3
or		
EGT 1101	Mechanical Design I	(3)
CAD 1102	Computer Aided Drafting/2D II	3

or		
EGT 1102	Mechanical Design II	(3)
CAD 2455	SolidWorks/Mechanical	3
CAD 2458	Introduction to Creo Basics	3
EGT 2303	Technical Drafting III	3
EGT 2310	Mechanical Design III	3
		21

Emphasis Areas

HVAC

HVA 1002	Basic Refrigeration	4
HVA 1005	Electricity for HVAC/R	4
HVA 1010	Fundamentals of Gas Heating	4
HVA 1011	Piping Skills for HVAC	4
HVA 2047	Hot Water Heating Systems	4
Electives	Choose six (6) hours from technical electives	6
		26
Total Credit Hours for HVAC Degree Emphasis		**62**

Mechanical

CAD 2660	3D Printing/Additive Manufacturing	3
EGT 2305	Geometric Dimension & Tolerance	3
MAC 1000	Machine Shop Safety	1
MAC 1001	Introduction to Machine Shop	3
MTE 1130	Metrology	3
MTE 2330	Strengths of Materials	3
Electives	Choose nine (9) hours from technical electives	9
		25
Total Credit Hours for Mechanical Degree Emphasis		**61**

Robotics & Automation

ELT 1004	Electronic Assembly	3
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2252	Motors & Controls	3
ELT 2358	Programmable Logic Controllers	3
ELT 2362	Introduction to Microcontrollers	3
ELT 2367	Introduction to Robotics	1
ELT 2368	Robotics Technologies	3
Electives	Choose three (3) hours from technical electives	3
		26
Total Credit Hours for Robotics & Automation Degree Emphasis		**62**

Technical Electives

CAD 2080	Internship	3
CAD 2456	Advanced SolidWorks	3
CAD 2459	Advanced Creo	3
CAD 2460	Inventor I/Autodesk	3
CAD 2660	3D Printing/Additive Manufacturing	3
CAD 2661	Advanced 3D Printing	3
MAC 2005	Introduction to CNC Milling Operations	3
MAC 2006	CNC Milling Operations II	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3

Certificates

Advanced CAD Technical Skills

The Advanced CAD Technical Skills Certificate is designed for students to learn a variety of techniques and skills associated with print reading for computer aided drafting. Students will learn about linetype identification and the use of lineweights, file management, industry standards in dimensioning and how to read working drawings. Additionally, students will learn basic computer aided drafting skills using AutoCAD software, 2D CAD skills. Students will develop skills in industrial dimensioning techniques

and apply the American Society of Mechanical Engineering (ASME) Y14.5 standards, and the production of industrial working drawings and working models based on ASME standards.

Program Learning Outcomes

Upon completion of the Advanced CAD Technical Skills certificate program, students should be able to:

- Produce 2D printed/plotted drawings with AutoCAD software
- Interpret working drawings for various industries
- Produce industrial working drawings and models based on industry standards
- Reverse engineer assemblies to create working drawings in 2D plan and 3D models

CAD 1100	Print Reading for Computer Aided Drafting	3
	or	
EGT 1100	Print Reading	(3)
CAD 1101	Computer Aided Drafting/2D I	3
	or	
EGT 1101	Mechanical Design I	(3)
CAD 1102	Computer Aided Drafting/2D II	3
	or	
EGT 1102	Mechanical Design II	(3)
CAD 1101	Computer Aided Drafting/2D I	3
CAD 1102	Computer Aided Drafting/2D II	3
EGT 2303	Technical Drafting III	3
EGT 2310	Mechanical Design III	3
Total Credit Hours		**15**

Advanced SolidWorks Skills

The Advanced SolidWorks Skills one-semester certificate is for individuals who are working in the field or individuals in a related field wishing to obtain SolidWorks skills beyond the entry level and with prior knowledge of Mechanical Drafting. Drafting technicians whose skills are dated and wish to update, should select this certificate to gain those skills required in industry. Advanced applications of the 3D parametric software include management of design data, advanced assembly, analysis of model creations, documentation of bill of materials and parts lists, rendering, animation, and dynamic simulation and testing a model assembly.

Program Learning Outcomes

Upon completion of the Advanced SolidWorks Skills certificate program, students should be able to:

- Use the SolidWorks software package to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models

CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
Total Credit Hours		**6**

Basic CAD Skills

The Basic CAD Skills Certificate is designed for students to learn a variety of techniques and skills associated with print reading for computer aided drafting. Students will learn about linetype identification and the use of lineweights, file management, industry standards in dimensioning and how to read working drawings. Additionally, students will learn basic computer aided drafting skills using AutoCAD software, 2D CAD skills.

Program Learning Outcomes

Upon completion of the Basic CAD Skills certificate program, students should be able to:

- Produce 2D printed/plotted drawings with AutoCAD software
- Interpret working drawings for various industries

CAD 1100	Print Reading for Computer Aided Drafting	3
	or	
EGT 1100	Print Reading	(3)
CAD 1101	Computer Aided Drafting/2D I	3
	or	
EGT 1101	Mechanical Design I	(3)
CAD 1102	Computer Aided Drafting/2D II	3
	or	
EGT 1102	Mechanical Design II	(3)
Total Credit Hours		**9**

CAD–Quality Assurance

The CAD – Quality Assurance Certificate is designed for students to learn a variety of techniques and skills associated with print reading for computer aided drafting. Students will learn about linetype identification and the use of lineweights, file management, industry standards in dimensioning and how to read working drawings. Additionally, students learn how to interpret and apply geometric dimensioning and tolerancing in machining or drafting per the American Society of Mechanical Engineering (ASME) Y14.5 specification. Students learn how to examine and interpret the generation of working drawings, and about the team effort amongst design, drafting, manufacturing, and quality control.

Program Learning Outcomes

Upon completion of the CAD-Quality Assurance certificate program, students should be able to:

- Apply geometric dimensioning and tolerancing (GDT) in machining/drafting
- Interpret working drawings for various industries
- Use common measuring instruments (e.g., Vernier, micrometer) found in manufacturing environments

CAD 1100	Print Reading for Computer Aided Drafting	3
	or	
EGT 1100	Print Reading	(3)
EGT 2305	Geometric Dimension & Tolerance	3
MAT 1140	Career Math or higher	3
MTE 1130	Metrology	3
Total Credit Hours		**12**

CAD Skills for Interiors

The CAD Skills for Interiors Certificate is designed for students to learn 2D AutoCAD software as well as 3D SketchUp software to develop their computer aided drafting and interior design skills, to enhance their design process, and ability to portray design concepts creating rendered interior spaces. Students learn a variety of techniques and skills associated with interior building systems and assemblies, construction documents and details, and codes applicable to interior architecture. In addition, students are introduced to methods of communicating interior design plans, elements. and ideas in 3D, through perspective drawing construction and quick sketch techniques, and practice rendering and illustration skills.

Program Learning Outcomes

Upon completion of the CAD Skills for Interiors certificate, students should be able to:

- Design interior projects to include floor plans, dimensions, elevations, sections, details, lighting, special features and finishes
- Create 2D design plans and 3D visualization models and presentations for interior design applications using AutoCAD and SketchUp software
- Produce construction documents using Autodesk AutoCAD software
- Apply various software modification techniques to produce drawings with enhanced lighting, materials, and finishes
- Develop digital presentation skills such as lighting, accessories, and reflectivity using various drafting software

CAD 1105	AutoCAD for Interiors	4
IND 2201	Graphic Communication	4
IND 2300	Interior Construction	4
Total Credit Hours		**12**

Modeling Design

The Modeling Design Certificate is designed for students to learn a variety of techniques and skills associated with print reading for computer aided drafting. Students learn to use Creo software to construct, modify, and manage complex parts in 3D space, as well as how to produce 2D drawings from 3D models. The focus is on advanced part creation, drawing manipulation, and documentation. Additionally, students build confidence in 3D thinking and progresses to three-dimensional parameters. Students learn how to use the 3D parametric software SolidWorks to focus on management of design data, advanced assembly, rendering, animation and dynamic simulation and testing a model assembly. Additionally, students learn how to create advanced 3D solid models using 3D printing and 3D scanning technology.

Program Learning Outcomes

Upon completion of the Modelling Design certificate program, students should be able to:

- Produce 2D drawings from 3D solid models
- Use the SolidWorks and Creo software packages to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Produce parts and assemblies using additive manufacturing/3D printing

CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
CAD 2458	Introduction to Creo Basics	3
CAD 2459	Advanced Creo	3
CAD 2660	3D Printing/Additive Manufacturing	3
CAD 2661	Advanced 3D Printing	3
Total Credit Hours		**18**

Professional CAD – Architecture

The Professional CAD - Architecture Certificate is designed for students to learn a variety of techniques and skills associated with print reading for computer aided drafting. Students learn about architectural drawing theory and light frame construction techniques and produce a professional set of construction drawings of a residential structure. Additionally, students acquire 2D architectural computer aided drafting skills using AutoCAD software, as well as learning to use Revit Architecture software to create floorplans, elevations, 3D models, topographic site plans, and presentation techniques.

Program Learning Outcomes

Upon completion of the Professional CAD - Architecture certificate program, students should be able to:

- Produce construction documents (e.g., topographic site plans, elevations, 3D models, templates, and presentations) using Autodesk Revit Architecture software
- Produce professional sets of construction drawings for residential and commercial structures

AEC 1220	Architectural Drawing Theory	4
AEC 1231	Residential Construction Drawing	4
CAD 1104	CAD for Architecture	4
CAD 2220	Revit Architecture	3
CAD 2221	Advanced Revit Architecture	3
Total Credit Hours		**18**

Professional CAD – Interior Design

The Professional CAD - Interior Design certificate is designed for students to learn advanced techniques using 2D AutoCAD and 3D Autodesk Revit software to enhance their computer aided drafting and interior design skills and increase their ability to portray design advanced concepts through the rendered interior spaces. Emphasis is placed on producing photorealistic 3-dimensional (3D) renderings and models that are specific to interior building elements and spaces through advanced modeling techniques such as advanced lighting, materials, and rendering techniques.

Program Learning Outcomes

Upon completion of the Professional CAD - Interior Design certificate, students should be able to:

- Design innovative interior projects to include floor plans, dimensions, elevations, sections, details, specification sheets, lighting, special features and finishes
- Produce construction documents (e.g., floor plans, elevations, sections, details, 3D models, templates, and presentations) using Autodesk Revit Architecture software
- Create 3D visualization models and presentations for interior design applications using advanced Autodesk Revit software
- Apply materials, lighting, and cameras to generate walk-through presentations
- Produce presentation quality renderings of 3D interior design and spaces

CAD 1105	AutoCAD for Interiors	4
CAD 2227	Revit for Interiors	3
CAD 2228	Advanced Revit for Interiors	3
IND 2201	Graphic Communication	4
IND 2300	Interior Construction	4
Total Credit Hours		**18**

Professional CAD - Mechanical

The Professional CAD – Mechanical Certificate is designed for students to learn a variety of techniques and skills associated with print reading for computer aided drafting. Students will learn about linetype identification and the use of lineweights, file management, industry standards in dimensioning and how to read working drawings. Additionally, students will learn basic computer aided drafting skills using AutoCAD software, 2D CAD skills, and how to use Creo software. Students build confidence in 3D thinking and progresses to three-dimensional parameters. Students will develop skills in industrial dimensioning techniques and apply the American Society of Mechanical Engineering (ASME) Y14.5 standards, and the production of industrial working drawings and working models based on ASME standards.

Program Learning Outcomes

Upon completion of the Professional CAD - Mechanical certificate program, students should be able to:

- Produce 2D and 3D printed/plotted drawings with AutoCAD software
- Interpret working drawings for various industries
- Produce industrial 2D working drawings and 3D models based on industry standards
- Produce 2D drawings from 3D models

CAD 1100	Print Reading for Computer Aided Drafting	3
or		
EGT 1100	Print Reading	(3)
CAD 1101	Computer Aided Drafting/2D I	3
or		
EGT 1101	Mechanical Design I	(3)
CAD 1102	Computer Aided Drafting/2D II	3
or		
EGT 1102	Mechanical Design II	(3)
CAD 2455	SolidWorks/Mechanical	3
CAD 2458	Introduction to Creo Basics	3
EGT 2303	Technical Drafting III	3
EGT 2310	Mechanical Design III	3
MAT 1140	Career Math	3
Electives	Choose six (6) hours from technical electives	6
Total Credit Hours		**30**

Professional CAD - Robotics

The Professional CAD Robotics certificate is designed for students to learn a variety of techniques and skills associated with basic computer aided drafting skills using AutoCAD software, 2D CAD skills and progress to three-dimensional parameters using the 3D parametric software SolidWorks to focus on management of design data, advanced assembly, rendering, animation and dynamic simulation and testing a model assembly and leading to creating an advanced 3D solid model using 3D printing software. Additionally, students learn skills needed to program a robot in a higher-level language to perform various tasks, including the building and interfacing of sensor circuits to include write and debug code, program the microcontroller, acquire, and analyze sensor data, and use that data to control actuators, robotic work envelopes, programming, troubleshooting, and maintenance.

Program Learning Outcomes

Upon completion of the Professional CAD Robotics Certificate, students should be able to:

- Produce 2D printed/plotted drawings with AutoCAD software
- Interpret and produce industrial 2D working drawings and 3D models based on industry standards
- Use the SolidWorks software package to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Produce parts and assemblies using additive manufacturing with 3D printing
- Construct, test, and troubleshoot electronic and digital circuits
- Solder electronic components on circuit boards
- Program, maintain, and troubleshoot robotic system
- Explain the architecture, hardware, programming languages, and input and output capabilities of microcontrollers
- Program a microcontroller to execute code

CAD 1100	Print Reading for Computer Aided Drafting	3
or		
EGT 1100	Print Reading	(3)
CAD 1101	Computer Aided Drafting/2D I	3
or		
EGT 1101	Mechanical Design I	(3)
CAD 1102	Computer Aided Drafting/2D II	3
or		
EGT 1102	Mechanical Design II	(3)
CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
CAD 2660	3D Printing/Additive Manufacturing	3
ELT 1004	Electronic Assembly	3
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2362	Introduction to Microcontrollers	3
ELT 2367	Introduction to Robotics	1
ELT 2368	Robotics Technologies	3
Total Credit Hours		**35**

Revit Skills

This certificate is for students who are in industry and with prior knowledge of Interior Design and Architecture. Students will polish their 2D architectural computer aided drafting skills using AutoCAD software, as well as learn to use Revit Architecture software to create floorplans, elevations, 3D models, topographic site plans, and presentation techniques.

Program Learning Outcomes

Upon completion of the Revit Skills certificate program, students should be able to:

- Produce construction documents (e.g., topographic site plans, elevations, 3D models, templates, and presentations) using Autodesk Revit Architecture software
- Create 3D visualization models and presentations for interior design applications using advanced Autodesk Revit software

CAD 2220	Revit Architecture	3
CAD 2221	Advanced Revit Architecture	3
Total Credit Hours		**6**

Additional information available on the Computer Aided Drafting and Design – Mechanical Department website at www.pikespeak.edu/programs/computer-aided-drafting.

Computer Information Systems

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

The Associate of Applied Science Degree in Computer Information Systems is designed for students who plan careers as information systems specialists. This program is designed for a student who plans to obtain an entry-level position in the information technology field. It provides a broad background that allows for free movement within the computer industry.

Students must have the ability to type 20 WPM or have completed BTE 1000.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have the instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Computer Information Systems degree program, students should be able to:

- Explain Office application software to present ideas and information clearly in digital and oral formats
- Analyze and demonstrate understanding of the information technology standards and ethical and professional conduct
- Interact effectively with others on a project in a workgroup
- Demonstrate skills and tools necessary for current computing practices
- Design, implement, and query relational databases
- Demonstrate by professionally present themselves for potential employment
- Illustrate customer service skills and techniques as an IT professional

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
CSC 1020	Problem Solving with (Software Package)	3
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
MAT 1340	College Algebra: MA1	4
		16

Additional Required Courses

CIS 1015	Introduction to Computer Information Systems	3
CIS 1024	Introduction to Operating Systems	3
CIS 1030	Introduction to the Internet	1
CIS 1045	Introduction to Desktop Database	3
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 2002	Automated Project Management	3
CIS 2040	Database Design	3
CIS 2063	PC Help Desk Skills	3
CIS 2067	Management of Information Systems	3
CIS 2080	Internship	3
or		
CIS 2089	Capstone	(3)
CNG 1001	Networking Fundamentals	3
CNG 1021	Computer Technician I: A+	4
CSC 1060	Computer Science I: (Language)	4
or		
CSC 2020	Introduction to Microsoft Visual Basic.NET	(3)
CWB 1010	Introduction to Web Authoring	3
CWB 2021	Technology Foundations for E-Commerce	3
Elective	Choose three (3) hours from CIS, CNG, CSC, CWB, MGD (except CIS 1018 or CSC 1005)	3
		47-48
Total Credit Hours		**63-64**

Certificates

Computer Application Specialist

Industry runs on productivities software and technology. Made for both novices and current industry professionals, learn to gain proficiency in the most commonly used software applications.

Program Learning Outcomes

Upon completion of the Computer Applications Specialist certificate program, students should be able to:

- Create, edit, and format texts, tables, and charts
- Create and modify database objects such as tables, queries, forms, and reports
- Utilize basic to advance features for spreadsheet software
- Demonstrate Microsoft Outlook functions and applications
- Create presentation materials to enhance communication
- Demonstrate desktop publishing applications to produce internal business documents such as memos, agendas, press releases and fax cover sheets

CIS 1018	Introduction to PC Applications	3
CIS 1035	Complete Word Processing	3
CIS 1040	Microsoft Outlook	1
CIS 1045	Introduction to Desktop Database	3
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 1065	Complete Presentation Graphics	3
Total Credit Hours		**16**

Computer Support Technician

Good Information technology support can be the difference between success and failure in an organization. This certificate is designed to allow students to gain the skills necessary to troubleshoot technology issues and contribute to the success of an organization supported by technology.

Program Learning Outcomes

Upon completion of the Computer Support Technician certificate program, students should be able to:

- Assemble and upgrade desktop/laptop computers based on customer needs
- Troubleshoot and analyze hardware and software problems
- Configure computer to connect to network
- Illustrate customer service skills and techniques as an IT professional
- Attain knowledge for the CompTIA A+ certification examination

CIS 1018	Introduction to PC Applications	3
CIS 1024	Introduction to Operating Systems	3
CIS 2063	PC Help Desk Skills	3
CNG 1001	Networking Fundamentals	3
CNG 1004	Introduction to TCP/IP	3
CNG 1021	Computer Technician I: A+	4
Total Credit Hours		**19**

Database

Organizations rely on Information management as the backbone of their decision-making process. Students in this certificate will gain the skills necessary to develop, interpret, and make decisions based on data.

Program Learning Outcomes

Upon completion of the Database certificate program, students should be able to:

- Create and use relational databases using Structured Query Language (SQL)
- Create structured and logically correct computer programs
- Implement and test multiple computer programs
- Utilize high-level programming language to develop software applications
- Illustrate the complete development of a computer information systems

CIS 1024	Introduction to Operating Systems	3
CIS 1045	Introduction to Desktop Database	3
CIS 2040	Database Design	3
CIS 2043	Introduction to Structured Query Language (SQL)	3
CSC 1019	Introduction to Programming	3
or		
CSC 1020	Problem Solving with (Software Package)	(3)
or		
CSC 1060	Computer Science I: (Language)	(4)
Total Credit Hours		**15-16**

Programming

Computer code is the fundamental building block of information systems and technology. Students will be able to code while studying specific computer coding languages used in industry today.

Program Learning Outcomes

Upon completion of the Programming certificate program, students should be able to:

- Create structured and logically correct computer programs
- Use high-level programming language to develop software applications
- Optimize computer architecture to enhance information transfer and control within a computer system

CSC 1019	Introduction to Programming	3
CSC 1060	Computer Science I: (Language)	4
CSC 1061	Computer Science II: (Language)	4
CSC 2017	Advanced Python Programming	3
CSC 2025	Computer Architecture/Assembly Language Programming	4
Total Credit Hours		**18**

Additional information available on the Computer Information Systems Department website at www.pikespeak.edu/programs/computer-information-systems.

Computer Networking Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

The Associate of Applied Science Degree provides students with practical and relevant skills in the field of Computer Networking and Information Technology. In addition to obtaining an Associate of Applied Science Degree, the program provides a foundation for students to further achieve industry certifications such as CompTIA Network+, CompTIA Security+, EC-Council's CEH (Certified Ethical Hacker) and CCNA (Cisco Certified Network Associate). Students completing this program will be able to demonstrate knowledge of computer software, computer hardware, network operating systems, networking device configuration, network administration, network security risks, cyber security threats and countermeasures specialized hardware and software defenses, and forensic analysis. Students entering this program should have a good foundation in math and reading, as well as basic familiarity with Microsoft Windows and internet browsers. Students may be advised to take additional courses to prepare them for the degree program.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Computer Networking Technology degree program, students should be able to:

- Analyze, design, install, configure, document, and troubleshoot network and system hardware and operating systems
- Implement LANs using both static and dynamic addressing techniques, including subnetting
- Identify risks, assess threats, and develop effective countermeasures aimed at protecting computer assets and data
- Communicate effectively both orally and in writing, using proper computer system and networking terminology
- Work as an effective member of a team

Emphasis Areas

Cisco

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1250	Interpersonal Communication: SS3	3
CSC 1020	Problem Solving with (Software Package)	3
ENG 1031	Technical Writing I: CO1	3
MAT 1340	College Algebra: MA1	4
		16

Additional Required Courses

CIS 1024	Introduction to Operating Systems	3
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 2002	Automated Project Management	3
CIS 2067	Management of Information Systems	3
CNG 1032	Network Security Fundamentals	3
CNG 2057	Network Defense & Counter Measures	3
CNG 2060	Cisco Network Associate I	5
CNG 2061	Cisco Network Associate II	5
CNG 2062	Cisco Network Associate III	5
CNG 2063	Cisco Network Associate IV	5
Electives	Choose six (6) hours from the list below	6
		44
Total Credit Hours for Cisco Degree Emphasis		**60**

Electives
Choose six (6) hours from any courses within the disciplines of BUS, CIS, CNG, CSC, CWB, MAN, MAR, MGD except CIS 1018, CNG 1002, CSC 1005, and MGD 1004.

Network+

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1250	Interpersonal Communication: SS3	3
CSC 1020	Problem Solving with (Software Package)	3
ENG 1031	Technical Writing I: CO1	3
MAT 1340	College Algebra: MA1	4
		16

Additional Required Courses

CIS 1024	Introduction to Operating Systems	3
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 2002	Automated Project Management	3
CIS 2023	Linux	3

CIS 2067	Management of Information Systems	3
CNG 1001	Networking Fundamentals	3
CNG 1002	Local Area Networks	3
CNG 1004	Introduction to TCP/IP	3
CNG 1008	Network Analysis & Design	3
CNG 1032	Network Security Fundamentals	3
CNG 2057	Network Defense & Counter Measures	3
CWB 1010	Introduction to Web Authoring	3
CWB 2021	Technology Foundations for E-Commerce	3
Electives	Choose six (6) hours from the list below	6
		45
Total Credit Hours for Network+ Degree Emphasis		**61**

Electives

Choose six (6) hours from any courses within the disciplines of BUS, CIS, CNG, CSC, CWB, MAN, MAR, MGD except CIS 1018, CNG 1001, CSC 1005, and MGD 1004.

Certificates

The Computer Networking Technology certificate provides students with practical and relevant skills in the field of Computer Networking and Information Technology. The Certificate program provides a foundation for students to further achieve industry certifications such as CompTIA Network+ and CCNA (Cisco Certified Network Associate). Students completing this program will be able to demonstrate knowledge of computer software, computer hardware, network operating systems, networking device configuration, and network administration. Students entering this program should have a good foundation in math and reading, as well as basic familiarity with Microsoft Windows and internet browsers. Students may be advised to take additional courses to prepare them for the degree program.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have the instructor permission to enroll.

CCNA

This certificate allows students to apply networking practices while being fully certified as a Cisco Network Associate.

Program Learning Outcomes

Upon completion of the CCNA certificate program, students should be able to:

- Use basic to advanced features of spreadsheet software
- Design network architecture
- Monitor and troubleshoot network operations
- Create Web documents

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
CIS 1024	Introduction to Operating Systems	3
CIS 1055	Complete Spreadsheets: (Software package)	3
CNG 2060	Cisco Network Associate I	5
CNG 2061	Cisco Network Associate II	5
CNG 2062	Cisco Network Associate III	5
CNG 2063	Cisco Network Associate IV	5
CWB 1010	Introduction to Web Authoring	3
Total Credit Hours		**32**

Cisco Certified Network Associate

This certificate program prepares students to design, build, and maintain networks capable of supporting national and global organizations. Course work covers a complete range of basic through advanced networking concepts from pulling cable to such complex concepts as subnet masking rules and strategies. Methods of learning are varied with interactive on-line lessons, texts, movies, and extensive hands-on applications. Upon successful completion, the program graduate is qualified to take the Cisco Networking Associate Certification examination.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Cisco Certified Network Associate certificate program, students should be able to:

- Design network architecture
- Monitor and troubleshoot network operations

CNG 2060	Cisco Network Associate I	5
CNG 2061	Cisco Network Associate II	5
CNG 2062	Cisco Network Associate III	5
CNG 2063	Cisco Network Associate IV	5
Total Credit Hours		**20**

Cyber Security

The Cyber Security certificate prepares students for an entry level position in the fields of cyber security and computer networking. This certificate provides a foundation for students to achieve industry certifications, such as CompTIA's Security+ and EC-Council's Certified Ethical Hacker. Students completing the certificate will be able to demonstrate knowledge of networking basics, network security risks, cyber security threats & countermeasures, specialized hardware & software defenses, and forensic analysis. Students entering this certificate program should have a good foundation in math and reading, as well as basic familiarity with Microsoft Windows and internet browsers.

Students may be advised to take additional courses to prepare them for the certificate program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Cyber Security certificate program, students should be able to:

- Build and configure networks using routers and switches
- Evaluate cyber risks and associated security countermeasures
- Design network defense strategies

CIS 2023	Linux	3
CNG 1001	Networking Fundamentals	3
and		
CNG 1004	Introduction to TCP/IP	3
or		
CNG 2060	Cisco Network Associate I	(5)
CNG 1002	Local Area Networks	3
CNG 1032	Network Security Fundamentals	3
CNG 2057	Network Defense & Counter Measures	3
Total Credit Hours		**17-18**

Network+

This certificate is designed to prepare students to build the skills necessary to test for and be awarded Network + certification which certifies an IT professional's expertise in managing, maintaining, troubleshooting, installing, and configuring basic computer networks.

Program Learning Outcomes

Upon completion of the Network+ certificate program, students should be able to:

- Build and configure networks using routers and switches
- Use basic to advanced features of spreadsheet software
- Create Web documents
- Develop the technological infrastructure supporting an electronic-commerce website

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
CIS 1024	Introduction to Operating Systems	3
CIS 1055	Complete Spreadsheets: (Software package)	3
CIS 2023	Linux	3
CNG 1001	Networking Fundamentals	3
CNG 1002	Local Area Networks	3
CNG 1004	Introduction to TCP/IP	3
CWB 1010	Introduction to Web Authoring	3
CWB 2021	Technology Foundations for E-Commerce	3
Total Credit Hours		**27**

Additional information available on the Computer Networking Department website at www.pikespeak.edu/programs/computer-networking.

Criminal Justice

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Criminal Justice Program at PPSC is designed to upgrade the skills and knowledge of employed criminal justice professionals, and to provide a pre-employment or transfer program to students interested in the field, or in continuing to a four-year school.

The student seeking an AAS degree, or the professional employed in the field can upgrade their skills for hiring, advancement and promotion. PPSC offers one of the broadest ranges of course offerings in the nation.

An AAS degree from PPSC will open doors into many opportunities in law enforcement at the state, federal and local level. Our students have gone on to careers in Criminal Investigations, as Crime Scene Investigators, Corrections officers, State and Federal Probation and Parole officers, and many others. Several PPSC graduates have advanced to become chiefs of police and sheriffs.

Students should realize, however, that a degree from PPSC will not guarantee a position with an agency in the criminal justice field. Many agencies impose requirements other than education for employment. These requirements may be related to age, physical condition, height, weight, and vision. The majority of employers in the criminal justice field will not hire persons with a felony conviction, or a lengthy history of drug use. Some arrests and/or convictions for certain crimes will also be disqualifiers. Employers in the field screen for certain psychological and personality traits, and many give pre-employment polygraph tests.

Prospective students with questions concerning the foregoing should consult with faculty advisors.

Program Learning Outcomes

Upon completion of the Criminal Justice degree program, students should be able to:

- Explain the origins of criminal behavior, society's response to crime, and the consequences of crime to our society, utilizing multiple perspectives
- Explain social injustices and social harms within criminal justice systems
- Compare theoretical frameworks to the causes and prevention of crime, the processes of criminalization, and the impact that crime has on society
- Discuss the relationships between the courtroom and its procedures, the criminal law, and issues of criminal procedure (due process vs. crime control)
- Document police-related activities through effective report-writing
- Differentiate and explain the key roles in the core criminal justice areas (law enforcement, law, and corrections)

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
ENG 1022	English Composition II: CO2	3
or		
COM 1150	Public Speaking	(3)
or		
PSC 1025	American State & Local Government: SS1	(3)
MAT 1140	Career Math	3
or		
MAT 1240	Mathematics for the Liberal Arts: MA1 or higher	(4)
PSY 2332	Psychology of Adjustment	3
Elective	AAS General Education Elective course	3
		18-19

Additional Required Courses

CRJ 1010	Introduction to Criminal Justice: SS3	3
CRJ 1025	Policing Systems	3
CRJ 1035	Judicial Function	3
CRJ 1045	Correctional Process	3
CRJ 2005	Principles of Criminal Law	3
LEA 1018	Police Report Writing	3
Electives	Choose twenty-four (24) credit hours from list below	24
		42
Total Credit Hours		**60-61**

Electives

CRJ 1027	Crime Scene Investigation	3
CRJ 2009	Criminal Investigation I	3
CRJ 2020	Human Relations & Social Conflict	3
CRJ 2025	Crisis Intervention	3
CRJ 2030	Criminology	3
CRJ 2031	Introduction to Forensic Science & Criminalistics	3
CRJ 2035	Delinquent Behavior	3
CRJ 2057	Victimology	3
CRJ 2068	Criminal Profiling	3
CRJ 2080	Internship	3

Certificates

Basic Criminology

This certificate provides an understanding of the causes, consequences, and the prevention of crime in society. Students will understand the nature of crime, how crime is managed, and the impact crime has on society.

Program Learning Outcomes

Upon completion of the Basic Criminology certificate program, students should be able to:

- Discuss the theories of adolescent delinquency, including factors contributing to it
- Discuss the theories of crime causation in relation to crime control
- Critique the criminal justice process and interaction/conflict between criminal justice agencies

CRJ 1010	Introduction to Criminal Justice: SS3	3
CRJ 2030	Criminology	3
CRJ 2035	Delinquent Behavior	3
Total Credit Hours		**9**

Basic Investigations

This certificate program provides an understanding of investigation, collection, and process of evidence from the crime scene to the courtroom. Students may choose this certificate as it may provide an opportunity to work in a non-sworn entry-level position in a law enforcement agency, such as an evidence technician.

Program Learning Outcomes

Upon completion of the Basic Investigations certificate program, students should be able to:

- Conduct a preliminary investigation of a crime scene (e.g., securing the scene, conducting interviews, collecting evidence using forensic science)
- Analyze fingerprint and trace evidence collected at a crime scene
- Document police-related activities

CRJ 1027	Crime Scene Investigation	3
CRJ 2009	Criminal Investigation I	3
CRJ 2031	Introduction to Forensic Science & Criminalistics	3
LEA 1018	Police Report Writing	3
Total Credit Hours		**12**

Behavior Studies

This certificate provides an understanding of the different theories of criminology that attempt to explain why people commit crimes and explore the minds of serial offenders and other offenders who victimize people within society. Students will study various theories of crime causation, and specifically individual and sociological influences.

Program Learning Outcomes

Upon completion of the Behavior Studies certificate program, students should be able to:

- Discuss the theories of crime causation in relation to criminal profiling and crime control
- Discuss the theories of adolescent delinquency, including factors contributing to it

- Employ conflict resolution techniques

CRJ 2020	Human Relations & Social Conflict	3
CRJ 2030	Criminology	3
CRJ 2035	Delinquent Behavior	3
CRJ 2068	Criminal Profiling	3
Total Credit Hours		**12**

Criminal Justice Basic

This certificate explores historical and current aspects of the criminal justice system. Students will study topics in the areas of policing, judicial systems, and correctional systems.

Program Learning Outcomes

Upon completion of the Criminal Justice Basic certificate program, students should be able to:

- Discuss the theories of crime causation in relation to crime control
- Discuss the criminal justice process and the dual court system
- Conduct a preliminary investigation of a crime scene (e.g., securing the scene, conducting interviews, collecting evidence)

CRJ 1010	Introduction to Criminal Justice: SS3	3
CRJ 1035	Judicial Function	3
CRJ 2009	Criminal Investigation I	3
CRJ 2030	Criminology	3
Total Credit Hours		**12**

Additional information available on the Criminal Justice Department website at www.pikespeak.edu/programs/criminal-justice.

Culinary Arts

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Culinary Arts continues to be one of the fastest growing career fields in the world. The culinary profession is a field different from most others, as it demands unusual circumstances and lengthy hours. The traits necessary to become a Culinarian are dedication, endurance, and ambition. Upon completion, the student will be able to work in a professional establishment as a second cook or station supervisor.

Students entering this course of study will be required to have completed or demonstrated proficiency equivalent to the completion of College Readiness in English, College Readiness for Quantitative Literacy, CUA 1000, CUA 1001, and must pass the national ServSafe Certification prior to enrolling into future Culinary Arts lab courses. Students must see a faculty advisor before registering for this program.

Program Learning Outcomes

Upon completion of the Culinary Arts degree program, students should be able to:

- Identify proper ServSafe sanitation practices
- Properly outline a HACCP recipe

- Demonstrate proficiency in basic culinary weight and volume measuring, and proper recipe conversion including high altitude adjustment
- Demonstrate proper knife care, handling, and usage
- Prepare and evaluate classical recipe preparations
- Demonstrate basic cake decorating techniques
- Demonstrate competency in food costing and menu pricing and analyze a practical food bid sheet

- Prepare a basic business plan for a restaurant, catering company, or any food venue (food truck, pop-up kitchen, etc.)
- Conduct a detailed nutritional analysis

General Education Courses

BUS 1015	Introduction to Business	3
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1031	Technical Writing I: CO1	3
MAT 1160	Financial Mathematics	3
PSY 1005	Psychology of Workplace Relationships	3
		15

Emphasis Areas

Baking and Pastry

This two-year program is designed for students seeking advanced employment in the baking and pastry field as assistant pastry chefs, or as a bakeshop station chef. During the course of study, students will learn and demonstrate basic baking skills, equipment, decorating, showpieces, breads, advanced desserts, and wedding cakes. Students will also be trained in sanitation, cost controls, purchasing, management skills, and nutrition.

Examinations will be given throughout the program. Once a student completes the AAS Baking and Pastry Arts Program, they can apply for certification with the American Culinary Federation to become a Certified Pastry Cook (CPC). Students entering this course of study will be required to have completed or demonstrated proficiency equivalent to the completion of College Readiness in English, College Readiness for Quantitative Literacy, CUA 1000, CUA 1001, and must pass the national ServSafe Certification prior to enrolling into future Culinary Arts lab courses. Students must see a faculty advisor before registering for this program.

Program Learning Outcomes

Upon completion of the Baking and Pastry degree program, students should be able to:

- Identify proper ServSafe sanitation practices
- Demonstrate proper knife care and handling
- Demonstrate how to properly cut and layer a cake accurately
- Demonstrate a balanced dessert plating
- Understand basic baking techniques
- Prepare yeast and unleavened breads
- Evaluate pastry tools and equipment, and their functions
- Design and prepare an elegant wedding cake
- Prepare a variety of dessert sauces
- Demonstrate proficiency in basic culinary weight, volume measuring, and recipe conversions

Additional Required Courses

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1005	Food Service Concepts & Management Skills	3

CUA 1025	Introduction to Foods	4
CUA 1027	Soups, Sauces & Consommés	3
CUA 1045	Introduction to Baking	4
CUA 1050	Baking: Decorating & Presentation	3
CUA 1051	Baking: Intermediate Bread Preparation	3
CUA 1052	Individual Fancy Dessert Production	3
CUA 1053	Confectionaries & Petit Fours	3
CUA 1054	Introduction to the Business of Catering	3
CUA 1056	Nutrition for the Hospitality Professional	3
CUA 1061	Advanced Cake Decorating-Wedding Cakes	2
CUA 2036	Advanced Baking	2
CUA 2062	Purchasing for the Hospitality Industry	3
CUA 2081	Internship	4
		48

Total Credit Hours for Baking and Pastry Degree Emphasis   63

Culinary Arts

The AAS Degree Program focuses on every aspect of working in a professional kitchen. Students will be trained in the following areas of study; basic food prep, sanitation, nutrition, supervision, baking, catering, wines and spirits, gardé manger (cold kitchen), purchasing, and soups, sauces, and consommés. Students will also be required to complete an on-the-job internship prior to graduation.

Once a student completes the AAS Culinary Arts Program, they can apply for certification with the American Culinary Federation to become a Certified Cook (CC). The Culinary Program encourages the students to receive certification due to the increase of positions in the United States that require an individual to be certified to work in different professional establishments.

Additional Required Courses

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1005	Food Service Concepts & Management Skills	3
CUA 1020	Wines & Spirits	2
CUA 1025	Introduction to Foods	4
CUA 1027	Soups, Sauces & Consommés	3
CUA 1029	Center of the Plate	4
CUA 1045	Introduction to Baking	4
CUA 1054	Introduction to the Business of Catering	3
CUA 1056	Nutrition for the Hospitality Professional	3
CUA 2010	Advanced Cuisine & Gardé Manger	4
CUA 2033	Advanced Line Prep & Cookery	4
CUA 2045	International Cuisine	2
CUA 2062	Purchasing for the Hospitality Industry	3
CUA 2081	Internship	4
		48

Total Credit Hours for Culinary Arts Degree Emphasis   63

Food Service Management

The AAS Degree Program focuses on the aspect of management in a professional food service operation. Students will be trained in the following areas of study; basic food prep, sanitation, cost controls, purchasing, legal aspects, nutrition, catering, beverages management, and supervision skills.

Students will also be required to complete an on-the-job internship prior to graduation.

Students may also take the national examinations by the National Restaurant Association Educational Foundation throughout the degree. Students that complete and pass the required exams will be eligible to receive the Manage First Professional Credential with the documentation of 800 hours industry related training.

Students entering this course of study will be required to have completed or demonstrated proficiency equivalent to the completion of College Readiness in English, College Readiness for Quantitative Literacy, CUA 1000, CUA 1001, and must pass the national ServSafe Certification prior to enrolling into future Culinary Arts lab courses. Students must see a faculty advisor before registering for this program.

Program Learning Outcomes

Upon completion of the Food Service degree program, students should be able to:

- Identify proper ServSafe sanitation practices
- Demonstrate proficiency in basic culinary weight and volume measuring
- and proper recipe conversion, including high altitude adjustments
- Properly demonstrate Food Costing and Menu Pricing
- Create a basic food service Business Plan
- Create a Marketing Plan for a food service operation
- Understand basic Laws and Regulations affecting the food service industry
- Understand how to manage a team and develop leadership skills
- Demonstrate Customer service techniques
- Design and evaluate a proper dining room table set up

Additional Required Courses

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1020	Wines & Spirits	2
CUA 1025	Introduction to Foods	4
CUA 1036	Alcohol & Bartending Management	2
CUA 1054	Introduction to the Business of Catering	3
CUA 1056	Nutrition for the Hospitality Professional	3
CUA 1057	Menu Planning	3
CUA 1190	Dining Room Management	4
CUA 2055	Supervision in the Hospitality Industry	3
CUA 2056	Marketing in the Hospitality Industry	3
CUA 2061	Cost Controls	3
CUA 2062	Purchasing for the Hospitality Industry	3
CUA 2063	Legal Aspects of Hospitality Management	3
CUA 2081	Internship	4
		45
Total Credit Hours for Food Service Management Degree Emphasis		**60**

Sustainability Management and Dietary Cuisine

This program is designed for students that seek employment in the food service employment industry with a focus on dietary and environmental sustainability practices to meet the future needs of the foods service industry. Employment opportunities include culinary and management careers in the health care industry, institutional operations with special dietary needs, operations that serve high-risk populations, and operations that utilize sustainability practices. Students will learn skills and understanding in human nutrition, menu development, cultural cuisines, sustainability practices, dietary cuisine, environmental impacts and concerns, and using the farm to fork concept within the industry. Examinations will be given throughout the program.

Students entering this course of study will be required to have completed or demonstrated proficiency equivalent to the completion of College Readiness in English, College Readiness for Quantitative Literacy, CUA 1000, CUA 1001, and must pass the national ServSafe Certification prior to enrolling into future Culinary Arts lab courses. Students must see a faculty advisor before registering for this program.

Program Learning Outcomes

Upon completion of the Sustainability Management and Dietary degree program, students should be able to:

- Identify proper ServSafe sanitation practices
- Properly demonstrate Food Costing and Menu Pricing
- Create a basic food service Business Plan
- Create a Marketing Plan for a food service operation
- Demonstrate basic cooking and baking techniques
- Develop a Nutritionally Balanced Menu
- Evaluate a recipe and make substitutes for better nutrition
- Identify methods to reduce a food service operations carbon footprint
- Prepare menus for various dietary needs and restrictions
- Identify religious dietary restrictions and prepare menus to accommodate these needs

General Education Courses

BUS 1015	Introduction to Business	3
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1031	Technical Writing I: CO1	3
ENV 1111	Environmental Science w/Lab: SC1	4
MAT 1160	Financial Mathematics	3
PSY 1005	Psychology of Workplace Relationships	3
		19

Additional Required Courses

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1005	Food Service Concepts & Management Skills	3
CUA 1025	Introduction to Foods	4
CUA 1045	Introduction to Baking	4
CUA 1056	Nutrition for the Hospitality Professional	3
CUA 1057	Menu Planning	3
CUA 2045	International Cuisine	2
CUA 2061	Cost Controls	3
CUA 2062	Purchasing for the Hospitality Industry	3
CUA 2064	Sustainable Food Service Operations	3
CUA 2068	Vegetarian & Dietary Cuisine	3
CUA 2069	Dietary Baking	2
CUA 2081	Internship	4
		42
Total Credit Hours for Sustainability Management & Dietary Cuisine Degree Emphasis		**61**

Certificates

Students will be required to have completed or demonstrated proficiency equivalent to the completion of College Readiness in English, College Readiness for Quantitative Literacy, CUA 1000, CUA 1001, and must pass the national ServSafe Certification prior to enrolling into future Culinary Arts lab courses. Students must see a faculty advisor before registering for this program.

Baking

This program will prepare students for employment in baking and the art of pastries. The certificate program will develop the students' skills and understanding in the areas of chocolates, confections items, ice creams and frozen desserts, yeast products, quick breads, sculpted items, sugar work, use of fruits, and national desserts. Students completing the certificate program could find employment in these specific areas: baker,

baking assistant, journeyman baker, cake decorator, candy maker, or pastry cook. Examinations will be given throughout the duration of the program.

Program Learning Outcomes

Upon completion of the Baking certificate program, students should be able to:

- Identify and operate common tools and equipment used in a commercial bakeshop
- Prepare and present a variety of baked goods and desserts
- Create menus for different styles of bakery establishments
- Calculate costs associated with producing various baked goods and desserts
- Apply food safety and sanitation standards to prevent foodborne illness

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1005	Food Service Concepts & Management Skills	3
CUA 1045	Introduction to Baking	4
CUA 1050	Baking: Decorating & Presentation	3
CUA 1051	Baking: Intermediate Bread Preparation	3
CUA 1052	Individual Fancy Dessert Production	3
CUA 1056	Nutrition for the Hospitality Professional	3
CUA 2036	Advanced Baking	2
CUA 2062	Purchasing for the Hospitality Industry	3
Total Credit Hours		**29**

Basic Skills

This certificate is designed for students seeking basic skills to enter the food services field. Students will learn national sanitation standards, management skills, and introduction to baking and cooking skills. Students will obtain the knowledge to work as a station cook with a food service establishment upon completion of this program. Examinations will be given throughout the program.

Program Learning Outcomes

Upon completion of the Culinary Arts Basic Skills certificate program, students should be able to:

- Identify and operate common tools and equipment used in a commercial kitchen
- Produce a variety of items using common cooking techniques
- Apply food safety and sanitation standards to prevent foodborne illness

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1003	Introduction to Sanitation & Production	3
CUA 1005	Food Service Concepts & Management Skills	3
CUA 1025	Introduction to Foods	4
CUA 1038	Food & Beverage Service	2
CUA 1045	Introduction to Baking	4
Total Credit Hours		**21**

Culinary Arts

This program is designed for students who seek employment as a journeyman cook, station cook, or entry level cook in a professional establishment. Students will develop skills and understanding of line cookery, basic baking, saucier station, production, nutrition, sanitation, menu planning, cold food production, and entree preparation. Examinations will be given throughout the program.

Program Learning Outcomes

Upon completion of the Culinary Arts certificate program, students should be able to:

- Create menus for different styles of food service establishments
- Prepare and produce the five mother sauces and derivates
- Prepare center of the plate entrees using common cooking methods
- Plan and prepare food display items for buffets and banquets
- Apply food safety and sanitation standards to prevent foodborne illness

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1005	Food Service Concepts & Management Skills	3
CUA 1025	Introduction to Foods	4
CUA 1027	Soups, Sauces & Consommés	3
CUA 1029	Center of the Plate	4
CUA 1045	Introduction to Baking	4
CUA 1056	Nutrition for the Hospitality Professional	3
CUA 2010	Advanced Cuisine & Gardé Manger	4
CUA 2033	Advanced Line Prep & Cookery	4
Total Credit Hours		**34**

Food Service Management

This program is designed for students who seek employment as supervisor in food service management. Students will learn skills and understanding in cost controls, employee management, marketing, sanitation standards, basic nutrition, menu development, establishment concepts, customer and business legalities, catering, wine selection, basic cooking, and purchasing. Examinations will be given throughout the program.

Program Learning Outcomes

Upon completion of the Food Service Management certificate program, students should be able to:

- Create and supervise the execution of menus for different styles of food service establishments
- Recruit and supervise food service personnel
- Develop a marketing plan based upon common marketing models and research methods
- Plan and implement catering functions
- Discuss legal aspects of hospitality management

CUA 1000	Culinary Program Fundamentals	3
CUA 1001	Food Safety & Sanitation	2
CUA 1005	Food Service Concepts & Management Skills	3
CUA 1020	Wines & Spirits	2
CUA 1025	Introduction to Foods	4
CUA 1054	Introduction to the Business of Catering	3
CUA 1056	Marketing in the Hospitality Industry	3
CUA 1190	Dining Room Management	4
CUA 2056	Marketing in the Hospitality Industry	3
CUA 2061	Cost Controls	3
CUA 2062	Purchasing for the Hospitality Industry	3
CUA 2063	Legal Aspects of Hospitality Management	3
Total Credit Hours		**36**

Additional information available on the Culinary Arts Department website at www.pikespeak.edu/programs/culinary-arts.

Cyber Security

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

The Cyber Security degree provides students with practical and relevant skills in the field of cyber security, information technology, and computer networking. Students completing the degree will be able to demonstrate knowledge of computer software, hardware, and cyber security risks. The Cyber Security degree provides students foundation knowledge of cyber security threats, as well as procedures to mitigate computer and network security risks. This degree also includes strategies and techniques to manage access control, telecommunications & network security, information security governance & risk management, software development security, cryptography, security architecture & design, operations security, business continuity & disaster recovery planning, legal, regulations, investigations & compliance, and physical security.

Program Learning Outcomes

Upon completion of the Cyber Security degree program, students should be able to:

- Apply basic scripting for automation
- Organize secure networks using appropriate network technology and protocols
- Describe the use of basic cryptography
- Utilize multiple operating systems both in the cloud and with on-premises hardware
- Apply security principles and best practices to secure systems and maintain operations in the presence of risks and threats
- Create cybersecurity planning and management in an organization
- Build security policies and ethics compliance

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
ENG 1031	Technical Writing I: CO1	3
MAT 1340	College Algebra: MA1	4
SOC 2018	Sociology of Diversity: SS3	3
		16

Additional Required Courses

CIS 1024	Introduction to Operating Systems	3
CIS 2023	Linux	3
CNG 1001	Networking Fundamentals	3
and		
CNG 1004	Introduction to TCP/IP	3
or		
CNG 2060	Cisco Network Associate I	(5)
CNG 1002	Local Area Networks	3
CNG 1032	Network Security Fundamentals	3
CNG 2057	Network Defense & Counter Measures	3
CNG 2061	Cisco Network Associate II	5
CNG 2070	Cisco Certified Network Associate, Security	5
CNG 2080	Internship	3
CSC 1019	Introduction to Programming: (Programming Language)	3

CSC 1029	Introduction to Secure Coding	3
CSC 2017	Advanced Python Programming	3
Electives	Choose three (3) hours from the list below	3
		45-46
Total Credit Hours		**61-62**

Electives
Choose three (3) hours from any courses within the disciplines of BUS, CIS, CNG, CSC, CWB.
Additional information available on the Cyber Security Department website at www.pikespeak.edu/cybersecurity.

Dental Assisting

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

A dental assistant is a skilled and essential member of the dental health care team in the delivery of preventive and restorative dentistry. The continuing demand for dental assistants makes this program an opportunity for a productive career.

The Dental Assisting certificate program prepares students for employment as chair-side dental assistants. In addition to the prescribed coursework, a minimum of 300 clinical hours is required to complete the program. Students must provide their own transportation to their clinical sites. A complete physical examination is required prior to the beginning of the clinical experience, and a Hepatitis B vaccination is strongly recommended.

Students must be at least 18 years of age before enrolling in Dental Radiology courses. Students must earn a C or better in all dental assisting and general education courses in order to graduate. Students must submit to a criminal background check and a drug screening prior to entering their clinical internship assignments. (Student fees for these tests apply.)

The program in Dental Assisting is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of Approval Without Reporting Requirements. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611-2678. The Commission's web address is www.ada.org/en/coda.

Graduates of the certificate program are eligible to take the Dental Assisting National Board (DANB) Examination. Successful completion of the DANB Examination awards students the status of Certified Dental Assistant (CDA).

Students who wish to pursue the Associate of Applied Science Degree in Dental Assisting must be a graduate of an ADA accredited dental assisting certificate program. Students participating in the AAS Degree program will be given instruction, laboratory experience, and clinical experience in expanded functions as permitted by the Dental Practice Law of Colorado. Students who wish to develop skills as an expanded functions dental assistant but, are not graduates of an ADA accredited dental assisting program, must be a Certified Dental Assistant or have a minimum of two years of full-time documented experience as a chairside dental assistant, preferably in a general dentistry practice.

Students who are interested in either the certificate program or the AAS degree program must meet with a dental assisting program advisor prior to enrolling in any dental assisting courses.

Program Learning Outcomes

Upon completion of the Dental Assisting degree program, students should be able to:

- Assist a variety of procedures in the dental office in a professional manner
- Identify uses of and manipulate a variety of dental materials to clinical standards
- Produce a variety of intra-oral and extra-oral radiographs of diagnostic quality
- Perform infection control procedures consistent with current industry standards
- Maintain accurate dental records
- Anticipate and identify potential medical emergencies that can arise before, during and after treatment
- Perform a variety of business office duties
- Provide restorative services to clinical competency
- Solve problems using critical thinking and principles of ethics
- Communicate with dental team members and patients in a professional manner

General Education Courses

CIS 1018	Introduction to PC Applications	3
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
COM 2250	Organizational Communication	(3)
ENG 1021	English Composition I: CO1	3
MAT 1140	Career Math	3
PSY 1001	General Psychology I: SS3	3
		15

Additional Required Courses

DEA 1011	Introduction to Dental Practices	1
DEA 1012	Dental Science I	3
DEA 1013	Dental Science II	3
DEA 1015	Infection Control	3
DEA 1016	Medical Emergencies in the Dental Office	2
DEA 1021	Principles of Clinical Practice	3
DEA 1022	Specialties of Dentistry	2
DEA 1023	Dental Materials I	3
DEA 1024	Dental Radiography	3
DEA 1031	Prevention & Nutrition in Dentistry	3
DEA 1033	Dental Materials II	3
DEA 1034	Advanced Dental Radiography	3
DEA 1035	Dental Office Management	2
DEA 1040	Dental Assisting National Board Review	1
DEA 1081	Clinical Internship I	1
DEA 1082	Clinical Internship II & Seminar	6
DEA 2011	Introduction to Expanded Functions	4
DEA 2021	Expanded Functions for Dental Auxiliary	4
		50
Total Credit Hours		**65**

Certificate

Dental Assisting

A dental assistant is a skilled and essential member of the dental health care team in the delivery of preventive and restorative dentistry. The continuing demand for dental assistants makes this program an opportunity for a productive career. The Dental Assisting certificate program prepares students for employment as chair-side dental assistants. In addition to the prescribed coursework, a minimum of 300 clinical hours is required to complete the program. Graduates of the certificate program are eligible to take the Dental Assisting National Board (DANB) Examination. Successful completion of the DANB Examination awards students the status of Certified Dental Assistant (CDA).

Program Learning Outcomes

Upon completion of the Dental Assisting certificate program, students should be able to:

- Assist a variety of procedures in the dental office in a professional manner (e.g., restorative, oral surgery, orthodontic, preventive, endodontic)
- Perform infection control procedures consistent with current industry standards
- Respond to medical emergency situations in the dental office (e.g., take and read vital signs, review health histories, prepare emergency drugs and equipment for use)
- Produce a variety of intra oral and extraoral radiographs of diagnostic quality
- Prepare various dental materials (e.g., cements, resins) for clinical and laboratory purposes

CIS 1018	Introduction to PC Applications	3
DEA 1011	Introduction to Dental Practices	1
DEA 1012	Dental Science I	3
DEA 1013	Dental Science II	3
DEA 1015	Infection Control	3
DEA 1016	Medical Emergencies in the Dental Office	2
DEA 1021	Principles of Clinical Practice	3
DEA 1022	Specialties in Dentistry	2
DEA 1023	Dental Materials I	3
DEA 1024	Dental Radiography	3
DEA 1031	Prevention & Nutrition in Dentistry	3
DEA 1033	Dental Materials II	3
DEA 1034	Advanced Dental Radiography	3
DEA 1035	Dental Office Management	2
DEA 1040	Dental Assisting National Board Review	1
DEA 1081	Clinical Internship I	1
DEA 1082	Clinical Internship II & Seminar	6
ENG 1021	English Composition I: CO1	3
Total Credit Hours		**47-48**

Additional information available on the Dental Assisting Department website at www.pikespeak.edu/programs/dental-assisting.

Diesel Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This program prepares students for entry level positions in the field of heavy-duty diesel vehicle repair and parts supply. Areas of emphasis are engine repair, fuel supply and management, suspension and brakes, hydraulic systems operation, and lighting and instrumentation. The program provides students with a broad foundation in the diesel repair field employers are looking for.

Students entering this program should exhibit the following qualities: mechanical aptitude, ability to read and follow instructions as outlined in service repair manuals and enjoy precision work and problem solving. Students must provide appropriate work clothing, safety glasses, and a basic set of hand

tools. Please meet with your advisor to get the required hand tool list.

Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Diesel Technology degree program, students should be able to:

- Interpret and use reference material found in the diesel industry
- Inspect and service selective catalytic reduction components and diesel particulate filters
- Interface with vehicle's on-board computer; perform diagnostic procedures using electronic service tool(s) (to include PC based software and/or data scan tools); determine needed action
- Read and interpret electrical/electronic circuits using wiring diagrams
- Use precision measuring tools as they apply to the diesel industry

General Education Courses

CIS 1018	Introduction to PC Applications	3
COM 2250	Organizational Communication	3
MAT 1140	Career Math	3
Elective	AAS General Education Elective course	6
		15

Additional Required Courses

DPM 1000	Introduction to Diesel Mechanics	2
DPM 1001	Diesel Shop Orientation	2
DPM 1003	Diesel Engines I	4
DPM 1005	Heavy Duty Powertrains I	3
DPM 1006	Diesel Fuel Systems	3
DPM 1020	Basic Heavy Duty Electricity	2
DPM 1021	Hydraulic Systems I	3
DPM 1022	Hydraulic Systems II	3
DPM 1026	Heavy Duty Starting & Charging	3
DPM 1040	Heavy Duty Steering & Suspension I	3
DPM 2003	Diesel Engines II	4
DPM 2005	Heavy Duty Powertrains II	3
DPM 2006	Heavy Duty Brakes I	3
DPM 2007	Heavy Duty Brakes II	3
DPM 2008	Heavy Duty Automatic Trans Diagnosis	1
DPM 2010	Diesel Air Induction & Exhaust	2
DPM 2022	Heavy Duty Lighting & Instrumentation	3
DPM 2023	Heavy Duty Body Electrical Systems	3
DPM 2040	Heavy Duty Steering & Suspension II	3
DPM 2064	Heavy Duty Heating & Ventilation	2
DPM 2065	Heavy Duty Air Conditioning Systems Service	3
		58
Total Credit Hours		**73**

Certificates

Diesel Engine Performance

The Diesel Engine Performance Certificate is designed for students to learn to identify and describe different types of diesel-powered vehicles, as well as use information provided in maintenance manuals and parts manuals. Students acquire skills associated with maintaining a safe and clean working heavy duty diesel shop. Students learn the proper safe use and care for hand electric, air, and hydraulic tools. Additionally, students learn about the operation and repair of fuel injection systems, including disassembly, assembly, and service procedures of fuel system components. Students acquire sills in the operation and repair of

turbochargers, superchargers, and various induction and exhaust systems, as well as procedures for reclaiming engine performance. Students also learn how to diagnose and repair the lighting systems found in medium/heavy duty trucks and equipment.

Program Learning Outcomes

Upon completion of the Diesel Engine Performance certificate program, students should be able to:

- Maintain a safe and clean working heavy duty diesel shop
- Conduct service procedures on fuel injection systems
- Determine service procedures for reclaiming engine performance
- Diagnose and repair lighting systems of medium and heavy-duty trucks

DPM 1000	Introduction to Diesel Mechanics	2
DPM 1001	Diesel Shop Orientation	2
DPM 1006	Diesel Fuel Systems	3
DPM 2010	Diesel Air Induction & Exhaust	2
DPM 2022	Heavy Duty Lighting & Instrumentation	3
Total Credit Hours		**12**

Diesel Engine Repair

The Diesel Engine Repair Certificate is designed for students to learn to identify and describe different types of diesel-powered vehicles, as well as use information provided in maintenance manuals and parts manuals. Students acquire skills associated with maintaining a safe and clean working heavy duty diesel shop. They also obtain skills in engine removal and reinstallation and remounting systems, with a particular focus on the operation and repair of diesel engines (disassemble, inspection, reassemble).

Program Learning Outcomes

Upon completion of the Diesel Engine Repair certificate program, students should be able to:

- Maintain a safe and clean working heavy duty diesel shop
- Diagnose and test diesel engines
- Assemble, inspect, and reassemble diesel engines (e.g., cinder blocks and big bore engines)

ASE 1060	Automotive Engine Repair	2
DPM 1000	Introduction to Diesel Mechanics	2
DPM 1001	Diesel Shop Orientation	2
DPM 1003	Diesel Engines I	4
DPM 2003	Diesel Engines II	4
Total Credit Hours		**14**

Diesel Fuel Injection

The Diesel Fuel Injection Certificate is designed for students to learn to identify and describe different types of diesel-powered vehicles, as well as use information provided in maintenance manuals and parts manuals. Students acquire skills associated with maintaining a safe and clean working heavy duty diesel shop. They also obtain skills in vehicle electricity, circuit designs, and wiring diagrams. Additionally, students learn about the operation and repair of fuel injection systems, including disassembly, assembly, and service procedures of fuel system components.

Program Learning Outcomes

Upon completion of the Diesel Fuel Injection certificate program, students should be able to:

- Maintain a safe and clean working heavy duty diesel shop
- Conduct service procedures of vehicle electricity and circuit systems

- Diagnose and repair fuel injection systems
- Conduct service procedures of fuel system components

ASE 1020	Basic Automotive Electricity	2
DPM 1000	Introduction to Diesel Mechanics	2
DPM 1001	Diesel Shop Orientation	2
DPM 1006	Diesel Fuel Systems	3
Total Credit Hours		**9**

Preventative Maintenance

The Preventative Maintenance Certificate is designed for students to learn to identify and describe different types of diesel-powered vehicles, as well as use information provided in maintenance manuals and parts manuals. Students acquire skills associated with maintaining a safe and clean working heavy duty diesel shop. Additionally, students learn to perform preventative maintenance on heavy equipment and truck cab electrical systems, diesel engine systems, drivetrains and steering systems, equipment hydraulic and pneumatic brake systems. Students also learn how to complete maintenance records and understand the process of diagnostics and troubleshooting.

Program Learning Outcomes

Upon completion of the Preventative Maintenance certificate program, students should be able to:

- Maintain a safe and clean working heavy duty diesel shop
- Perform preventative maintenance on diesel powered vehicles (e.g., heavy equipment, truck cab, truck diesel engine systems, electrical systems, engine, drivetrains and steering systems, brakes)
- Complete maintenance records documentation

DPM 1000	Introduction to Diesel Mechanics	2
DPM 1001	Diesel Shop Orientation	2
DPM 1011	Cab & Electrical PMI	1.5
DPM 1012	Engine Systems PMI	1.5
DPM 2011	Drivetrain, Steering & Suspension Preventive Maintenance	1.5
DPM 2012	Brake System PMI	1.5
Total Credit Hours		**10**

Additional information available on the Diesel Technology Department website at www.pikespeak.edu/programs/diesel-technology.

Dietary Management

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

The Associate of Applied Science is the pathway for students interested in earning a degree with the Certified Dietary Manager certificate. This program provides related work experience as well as the basic career and technical knowledge required to manage non-commercial foodservice departments.

Program Learning Outcomes

Upon completion of the Dietary Management degree program, students should be able to:

- Manage the personnel, operations, and physical facilities of food service systems
- Apply standard nutrition care to meet the nutritional needs of clients

- Design, implement, monitor, and assess the effectiveness of nutrition care plans in coordination with the interdisciplinary team
- Apply safe food handling techniques in the food service department

General Education Courses

BIO 1004	Biology: A Human Approach: SC1	4
CHE 1011	Introduction to Chemistry I w/Lab: SC1	5
CIS 1018	Introduction to PC Applications	3
COM 1250	Interpersonal Communication: SS3	3
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
HIS 2015	20th Century World History: HI1	3
MAT 1340	College Algebra: MA1	4
PHI 1011	Introduction to Philosophy: AH3	3
or		
PHI 1012	Ethics: AH3	(3)
		31

Additional Required Courses

CUA 1001	Food Safety & Sanitation	2
DIT 1021	Nutrition for Dietary Managers	4
DIT 1023	Management for Dietary Managers	4
DIT 1080	Field Experience: Nutrition	1
DIT 1081	Field Experience: Human Resources Management	2
DIT 1082	Field Experience: Sanitation & Management of Food Systems	2
ECO 2001	Principles of Macroeconomics: SS1	3
HWE 1050	Human Nutrition	3
PSY 1005	Psychology of Workplace Relationships	3
Electives	Choose two (2) credit hours from PED courses	2
	Choose three (3) credit hours from AH1, AH2, AH3, AH4 to exclude PHI	3
		29
Total Credit Hours		**60**

Certificate

Certified Dietary Manager Training Program

Offers education, training, and supervised experience to competently perform the responsibilities of a Certified Dietary Manager, Certified Food Protection Professional (CDM®, CFPP®) in healthcare and long-term care facilities, school districts and correctional institutions. Emphasizes the fundamentals of nutrition, foodservice, personnel and communications, sanitation and safety, and business operations in a foodservice department. Upon successful completion of the program individuals will be eligible to take the Certified Dietary Manager, Certified Food Protection Professional (CDM®, CFPP®) national examination from the Certifying Board of Dietary Managers (CBDM) and the Association of Nutrition and Foodservice Professionals (ANFP).

Program Learning Outcomes

Upon completion of the Certified Dietary Manager certificate program, students should be able to:

- Provide optimal nutrition services to patients or residents as a member of the nutrition care team
- Coordinate the service of food and nourishments among various departments such as dining and nursing
- Oversee food safety, inventory, and ordering of food, equipment, and supplies
- Arrange for the routine maintenance and upkeep of the foodservice equipment and facilities

- Coordinate all administrative and human resource functions of the foodservice department

CUA 1001	Food Safety & Sanitation	2
DIT 1021	Nutrition for Dietary Managers	4
DIT 1023	Management for Dietary Managers	4
DIT 1080	Field Experience: Nutrition	1
DIT 1081	Field Experience: Human Resources Management	2
DIT 1082	Field Experience: Sanitation & Management of Food Systems	2
HWE 1050	Human Nutrition	3
Total Credit Hours		**18**

Additional information available on the Dietary Management Department website at https://www.pikespeak.edu/programs/nutrition-and-dietetic-technology/dietary-management.php.

Early Childhood Education

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Early Childhood Education, like all education, demands well-prepared teachers. A growing body of research supports the value of high-quality early childhood programs for children's later success in school and in life, the most important determinant of which is the teacher.

Pikes Peak State College and the Early Childhood Education program faculty are committed to providing the optimal course of study that meets the career goals of each student. The Early Childhood Education program is the foundation for a challenging and rewarding career in early childhood care and education as well as other related fields.

All students registered for ECE classes, both lecture-based and practicum-based courses, must submit to a criminal background check the first semester of enrollment. This process is completed online through the PPSC Human Resources Department, with an associated cost for the background check service. Further instructions are available on the ECE home page and will be provided the first day of class.

Upon completion of the Early Childhood Education program, students will be able to meet the educational qualifications for early childhood teacher and director as defined by the Colorado Department of Human Services for licensed childcare centers and preschools.

All students should schedule an appointment with an Early Childhood Education program advisor prior to enrolling in a class. Please call 719-502-3300 to schedule an appointment.

Program Learning Outcomes

Upon completion of the Early Childhood Education degree program, students should be able to:

- Apply their knowledge of child development and learning to their teaching practices
- Develop family and community relationships
- Observe, document, and assess young children to make informed decisions
- Apply developmentally effective approaches to connect with children and families
- Use content knowledge to build meaningful curriculum
- Define and demonstrate being an early childhood professional

General Education Courses

CIS 1018 or	Introduction to PC Applications	3
CSC 1005	Computer Literacy	(3)
COM 1150 or	Public Speaking	3
COM 1250	Interpersonal Communication: SS3	(3)
ENG 1021	English Composition I: CO1	3
MAT 1160	Financial Mathematics	3
PSY 1001 or	General Psychology I: SS3	3
PSY 2332 or	Psychology of Adjustment	(3)
SOC 1001 or	Introduction to Sociology I: SS3	(3)
SOC 2005	Sociology of Family Dynamics: SS3	(3)
		15

Additional Required Courses (all emphasis areas)

ECE 1011	Introduction to Early Childhood Education	3
ECE 1031	Guidance Strategies for Young Children	3
ECE 1045	Introduction to Early Childhood Techniques	3
ECE 1111	Infant & Toddler Theory & Practice	3
ECE 2051	Nutrition, Health & Safety	3
ECE 2061	Observation & Assessment of Young Children's Development, Learning, & Programs	1
ECE 2101	Working with Families & Communities	3
ECE 2381	ECE Child Growth & Development	3
ECE 2401	Administration of Early Childhood Care & Education Programs	3
ECE 2411	Administration: Human Relations for Early Childhood Education	3
ECE 2601	The Exceptional Child	3
ECE 2621	Curriculum Development: Methods & Techniques	3
ECE 2641	Creativity & the Young Child	3

ECE Practicums Options

Eight (8) credit hours

ECE 1125	Introduction to Infant/Toddler Lab Techniques	3
ECE 1925	School Age Lab Techniques	3
ECE 2615	Exceptional Child Lab Techniques	3
AND		
ECE 2089	Capstone: Early Childhood Education	5
		45
Total Credit Hours		**60**

Certificates

Basic Skills

Patient and compassionate students will learn best practices for teaching children ages 3 through 8 in the classroom, how to cultivate the learning and imagination of youth as well as learning to handle medical emergencies.

Program Learning Outcomes

Upon completion of the Basic Skills certificate program, students should be able to:

- Implement and assess guidance and classroom management techniques

- Create a supportive, engaging, and inclusive classroom community
- Establish professional and ethical interactions with colleagues, children, and families
- Design and implement creative activities supporting self-expression and problem-solving skills in children

ECE 1011	Introduction to Early Childhood Education	3
ECE 1031	Guidance Strategies for Young Children	3
ECE 1045	Introduction to Early Childhood Techniques	3
ECE 2641	Creativity & the Young Child	3
HWE 1001	Community First Aid & CPR	1
Total Credit Hours		**13**

Director

Learn about the policies of preschool administration. Students will learn about the hiring process at Early Childhood institutions as well as learning and discussing learning theory and pedagogy with other PPSC students with similar goals.

Program Learning Outcomes

Upon completion of the Director certificate program, students should be able to:

- Establish professional and ethical interactions with colleagues, children, and families
- Implement responsive routines and environments to support the development of (typical and atypical) infants, toddlers, and children, including effective guidance and management techniques
- Observe and assess infant, toddler, and child development
- Create a supportive, engaging, and inclusive classroom community
- Design, implement, and evaluate developmentally and culturally appropriate learning experiences and environments
- Manage Early Childhood Education programs (e.g., ethical decision making, resource management

ECE 1011	Introduction to Early Childhood Education	3
ECE 1031	Guidance Strategies for Young Children	3
ECE 1045	Introduction to Early Childhood Techniques	3
ECE 1111	Infant & Toddler Theory & Practice	3
ECE 2051	Nutrition, Health & Safety	3
ECE 2381	ECE Child Growth & Development	3
ECE 2401	Administration of Early Childhood Care & Education Programs	3
ECE 2411	Administration: Human Relations for Early Childhood Education	3
ECE 2601	The Exceptional Child	3
ECE 2621	Curriculum Development: Methods & Techniques	3
Total Credit Hours		**30**

Early Childhood Assistant Teacher

After completing this certificate, students will meet the minimum qualifications for the DHS. This qualification is a requirement for employment at many early childhood institutions.

Program Learning Outcomes

Upon completion of the Early Childhood Assistant Teacher certificate program, students should be able to:

- Observe and assess children's development
- Create a supportive, engaging, and inclusive classroom community

- Implement and assess guidance and classroom management techniques

ECE 1011	Introduction to Early Childhood Education	3
or		
ECE 1031	Guidance Strategies for Young Children	(3)
ECE	Elective Course of Choice	3
Total Credit Hours		**6**

Early Childhood Teacher

Students learn the necessary skills to seek employment at preschool programs in the state of Colorado.

Program Learning Outcomes

Upon completion of the Early Childhood Teacher certificate program, students should be able to:

- Establish professional, ethical, and inclusive interactions with colleagues, children, and families
- Implement responsive routines and environments to support children's development, including effective guidance and management techniques
- Observe and assess children's development
- Create a supportive, engaging, and inclusive classroom community
- Design, implement, and evaluate developmentally and culturally appropriate learning experiences

ECE 1011	Introduction to Early Childhood Education	3
ECE 1031	Guidance Strategies for Young Children	3
ECE 1045	Introduction to Early Childhood Techniques	3
ECE 2101	Working with Families & Communities	3
ECE 2381	ECE Child Growth & Development	3
ECE 2621	Curriculum Development: Methods & Techniques	3
Total Credit Hours		**18**

Infant Toddler

Students learn how to care for infants and toddlers (birth to age three) with this certificate. With this certificate, students will be equipped for employment at daycares, preschools, Head Start programs, among other employment opportunities.

Program Learning Outcomes

Upon completion of the Infant Toddler certificate program, students should be able to:

- Observe and assess infant and toddler development
- Create learning environments promoting the health, nutrition, and safety of young children
- Implement responsive routines and environments to support the development of (typical and atypical) infants and toddlers, including effective guidance and nurturing techniques
- Establish professional, ethical, and inclusive interactions with colleagues, children, and families

ECE 1111	Infant & Toddler Theory & Practice	3
ECE 1125	Introduction to Infant/Toddler Lab Techniques	3
ECE 2051	Nutrition, Health & Safety	3
ECE 2101	Working with Families & Communities	3
ECE 2381	ECE Child Growth & Development	3
ECE 2601	The Exceptional Child	3
Total Credit Hours		**18**

Additional information available on the Early Childhood Education Department website at www.pikespeak.edu/programs/early-childhood-education.

Emergency Medical Services

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Pikes Peak State College offers a variety of courses in the Emergency Medical Services field. It is a Colorado Department of Health and Environment, Pre-hospital Care Division approved training center. It has the approval of the State Board for Community Colleges and Occupational Education. The programs are implemented with the cooperation of local medical societies and emergency medical agencies.

Program Learning Outcomes

Upon completion of the Emergency Medical Services (EMS) degree program, students should be able to:

- Perform relevant EMS psychomotor skills
- Interpret and apply EMS and general medical knowledge necessary to function in a healthcare setting
- Conduct oneself in an ethical and professional manner
- Effectively apply communication techniques in various situations

Emphasis Areas

Emergency Medical Technician

This program provides the Emergency Medical Technician the opportunity to complete the educational requirements for the AAS degree. This program offers education, training, and supervised clinical experiences to further prepare an EMT student to function in the pre-hospital setting such as urban/rural EMS, fire services, or contracted medical work with industrial, tactical, or expeditionary systems. Students will also be better equipped to apply for work with public and private healthcare institutions and correctional institutions under the scope of practice available to practitioners in Colorado.

General Education Requirements
COM 1150	Public Speaking	3
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
MAT 1140	Career Math	3
PSY 1001	General Psychology I: SS3	3
		15

Additional Required Courses
BIO 1111	General College Biology I w/Lab: SC1	5
BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
EMS 1021	EMT Fundamentals	3
EMS 1022	EMT Medical Emergencies	4
EMS 1023	EMT Trauma Emergencies	2
EMS 1024	EMT Special Considerations	2
EMS 1070	EMT Clinical	1
EMS 1081	EMT Internship I	1.5
EMS 1132	EMS IV/IO Therapy	2
EMS 1138	Basic EMS Simulation Lab	3
EMS 1140	Advanced EMS Simulation Lab	3
HPR 1006	Customer Service in Healthcare	2
HPR 1011	CPR for Professionals	0.5
HPR 1039	Medical Terminology	2

PSY 2441	Child Development: SS3	3
PSY 2552	Abnormal Psychology: SS3	3
		45
Total Credit Hours for Emergency Medical Technician Degree Emphasis		**60**

Paramedic

This program provides the Emergency Medical Technician at the Paramedic level with the opportunity to complete the educational requirements for the AAS Degree in Emergency Medical Services. Options are designed for the Paramedic level to allow students an opportunity to pursue a career compatible with their interest. Paramedic cohorts begin each Fall. A cohort is comprised of AAS and certificate-seeking students. The application process opens at the start of each Spring semester. Students are required to be Colorado-certified EMTs and have completed BIO 2101 with a C or higher to apply. The application process includes the TEAS V for Allied Health exam.

General Education Requirements
BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
PSY 1001	General Psychology I: SS3	3
		17

Additional Required Courses
EMS 2025	Fundamentals of Paramedic Practice	3
EMS 2026	Fundamentals of Paramedic Practice Lab	2
EMS 2027	Paramedic Special Considerations	3
EMS 2028	Paramedic Special Considerations Lab	2
EMS 2029	Paramedic Pharmacology	3
EMS 2030	Paramedic Pharmacology Lab	2
EMS 2031	Paramedic Cardiology	5
EMS 2032	Paramedic Cardiology Lab	1
EMS 2033	Paramedic Medical Emergencies	4
EMS 2034	Paramedic Medical Emergencies Lab	1
EMS 2035	Paramedic Trauma Emergencies	4
EMS 2036	Paramedic Trauma Emergencies Lab	1
EMS 2037	Paramedic Internship Preparation	2
EMS 2080	Paramedic Internship I	6
EMS 2081	Paramedic Internship II	6
		45
Total Credit Hours for Paramedic Degree Emphasis		**62**

Certificates

Advanced Emergency Medical Technician

The primary focus of the Advanced Emergency Medical Technician is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This program will build on the basic knowledge and skills of an EMT necessary to provide patient care. Advanced Emergency Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Advanced Emergency Medical Technicians perform interventions with the basic and advanced equipment typically found on an ambulance. The Advanced Emergency Medical Technician is a link from the scene to the emergency health care system.

[From the: National EMS Scope of Practice Model]

Program Learning Outcomes

Upon completion of the Advanced Emergency Medical Technician certificate program, students should be able to:

- Perform patient assessments through physical examination and patient interviews of health history and current illness
- Formulate and carry out a patient treatment plan based on assessment information
- Provide basic and selected advanced emergency care and transportation for a patient with special needs
- Calculate, prepare, and administer medication doses

EMS 1071	AEMT Clinical Internship	2
EMS 1125	AEMT Fundamentals	2
EMS 1127	AEMT Special Considerations	2
EMS 1129	AEMT Pharmacology	1
EMS 1132	EMS IV/IO Therapy	2
EMS 1133	AEMT Medical Emergencies	2
EMS 1135	AEMT Trauma Emergencies	2
Total Credit Hours		**13**

Emergency Medical Technician

The Emergency Medical Technician Certificate will prepare students to enter the field of Emergency Medical services as an EMT. EMTs work for ambulance companies, fire departments, and hospitals as paid or volunteer providers. Students will be able to demonstrate behaviors consistent with professional and employer expectations, technical proficiency in all the skills necessary to fulfill the role of an entry-level EMT, will be able to comprehend, apply, and evaluate information relative to the role of an entry-level EMT, will use sound judgment while functioning in the healthcare setting as an entry-level EMT, and will use critical thinking skills to assess and treat patients in emergency situations as an entry-level EMT.

Program Learning Outcomes

Upon completion of the Emergency Medical Technician certificate program, students should be able to:

- Perform a thorough physical examination on patients with medical and/or trauma complaints
- Respond to medical and trauma needs of patients, including special patient populations (e.g., pregnant patients, infants) and circumstances (e.g., mass casualty incidents, vehicle extrication)

EMS 1021	EMT Fundamentals	3
EMS 1022	EMT Medical Emergencies	4
EMS 1023	EMT Trauma Emergencies	2
EMS 1024	EMT Special Considerations	2
EMS 1070	EMT Clinical	1
Total Credit Hours		**12**

EMT Enhanced Curriculum

Offers education, training, and supervised clinical experience to further prepare an EMT student to function in the pre-hospital setting such as urban/rural EMS, fire services, or contracted medical work with industrial, tactical, or expeditionary systems. Furthermore, students will be better equipped to apply for work with public and private healthcare institutions and correctional institutions. Emphasizes the enhanced EMT scope of practice available to practitioners in Colorado and elsewhere. Upon successful completion of the program, individuals will obtain an Intravenous Therapy certification, and program completion certification for increased visibility during job applications.

Program co-requisites: EMS 1021, EMS 1022, EMS 1023, EMS 1024, and EMS 1070 to begin

Program Learning Outcomes

Upon completion of the EMT Enhanced Curriculum certificate program, students should be able to:

- Interpret 3-lead electrocardiogram results
- Model therapeutic communication techniques in the field, clinical environment, and simulated field environment
- Demonstrate successful peripheral intravenous (IV) access in the lab and clinical setting

EMS 1138	Basic EMS Simulation Lab	3
EMS 1140	Advanced EMS Simulation Lab	3
HPR 1050	Basic EKG Interpretation	2
HWE 129	Wilderness First Responder	4
Elective	Choose one elective from below	3
Total Credit Hours		**15**

Electives
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
PSY 1001	General Psychology I: SS3	3

Paramedic

This Paramedic certificate provides students with the skills needed to deliver emergency medical care to sick or injured patients in a safe and accurate manner. Student are introduced to the advanced practice of prehospital care, advanced emergency pharmacology, pharmacokinetics, and pharmacodynamics. Additionally, students learn about cardiovascular emergencies and the care of patients presenting with cardiovascular emergencies. Students learn how to integrate assessment findings when formulating a field impression and implementing a treatment plan in medical emergencies, trauma emergencies, and for acutely injured patients.

Program Learning Outcomes

Upon completion of the Paramedic certificate program, students should be able to:

- Perform a complete patient assessment
- Formulate and implement treatment plans for patients suffering from medical emergencies based on assessment findings
- Formulate and implement treatment plans for patients suffering from traumatic emergencies based on assessment findings
- Assess and treat special patient populations (e.g., newborns, elderly, patients with special needs)
- Serve as the Advanced Life Support team leader in a variety of emergency situations

BIO 1006	Basic Anatomy & Physiology	4
or		
BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	(4)
EMS 2025	Fundamentals of Paramedic Practice	3
EMS 2026	Fundamentals of Paramedic Practice Lab	2
EMS 2027	Paramedic Special Considerations	3
EMS 2028	Paramedic Special Considerations Lab	2
EMS 2029	Paramedic Pharmacology	3
EMS 2030	Paramedic Pharmacology Lab	2
EMS 2031	Paramedic Cardiology	5
EMS 2032	Paramedic Cardiology Lab	1
EMS 2033	Paramedic Medical Emergencies	4
EMS 2034	Paramedic Medical Emergencies Lab	1

EMS 2035	Paramedic Trauma Emergencies	4
EMS 2036	Paramedic Trauma Emergencies Lab	1
EMS 2037	Paramedic Internship Preparation	2
EMS 2080	Paramedic Internship I	6
EMS 2081	Paramedic Internship II	6
Total Credit Hours		**49**

Additional information available on the Emergency Medical Services Department website at www.pikespeak.edu/programs/emergency-medical-services.

Fire Science Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

These programs are designed to allow an opportunity for experienced firefighters to receive awarded credits for knowledge gained through experience and training through the Fire Science Prior Learning Assessment Program.

A plan for the entry into and completion of the Fire Science Technology or Fire Service Management degrees should be discussed with the Fire Science faculty advisors. This advising is needed to provide thorough information on the requirements of the degree programs as well as to align the courses of the degrees with the students' academic and career goals.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
MAT 1140	Career Math or higher	3
PSC 1011	American Government: SS1	3
or		
PSY 1005	Psychology of Workplace Relationships	(3)
		15

Emphasis Areas

Fire Science Technology

The Fire Science Technology degree is designed to prepare individuals who have little or no experience with the firefighting profession for entry-level positions in the fire service industry. The mission of the Fire Science Technology degree program is to provide students with the essential knowledge and skills required to succeed in the fields of fire protection, emergency management, firefighting, and wildland firefighting. Our goal is to equip students with the fundamental knowledge required to work effectively in entry-level positions in the fire service industry; to provide program curriculum, both instructive and practical, that encompasses basic firefighting knowledge and skills; and to incorporate the needs of area fire departments by providing advanced classes to enhance current firefighters' knowledge and skills.

Program Learning Outcomes

Upon completion of the Fire Science Technology degree program, students should be able to:

- Formulate basic fire ground strategies and tactics to be used during structure fire incidents
- Distinguish the different stages and types of fire behavior
- Compare the five building construction types and how they play a role during structural firefighting
- Analyze how and why the fire service incorporates safety and health measures
- Compare and contrast fire detection and suppression systems in various types of buildings

Additional Required Courses

EMP 1001	Emergency Management	3
FST 1002	Principles/Emergency Services	3
FST 1003	Fire Behavior & Combustion	3
FST 1005	Building Construction for Fire Protection	3
FST 1006	Fire Prevention	3
FST 1009	Occupational Safety & Health for Fire	3
FST 2001	Instructional Methodology	3
FST 2002	Strategy & Tactics	3
FST 2003	Fire Hydraulics & Water Supply	3
FST 2009	Fire Protection Systems	3
FST 2059	Wildland Firefighting Strategy & Tactics	3
Elective	Choose twelve (12) hours from technical electives	12
		45
Total Credit Hours for Fire Science Technology Degree Emphasis		**60**

Technical Electives

FST 1000	Firefighter I	9
FST 1007	Hazardous Materials Operations (Level I)	3
FST 1010	Job Placement & Assessment	3
FST 1060	Candidate Physical Abilities Prep	3

Any other FST, FSW or PSM credits count for Technical Elective courses.

Fire Service Management

The Fire Service Management degree is designed to prepare aspiring and experienced firefighters for future supervisory and leadership roles. The mission of the Fire Service Management degree program is to provide students with the essential knowledge and skills required to excel in supervisory and leadership roles of the fire service. Our goal is to provide foundational curriculum, both instructive and practical, that encompasses firefighting knowledge and skills; enhance students' leadership, management, and administrative abilities; and to provide current firefighters an opportunity to expand on their knowledge, in preparation for future supervisory roles.

Program Learning Outcomes

Upon completion of the Fire Service Management degree program, students should be able to:

- Assess the effectiveness of strategy and tactics on fire incidents
- Explain both management and administrative functions within the fire service
- Apply leadership abilities at the company level
- Analyze the cause and origin of fires
- Describe the principles of emergency management

Additional Required Courses

EMP 1001	Emergency Management	3
FST 1009	Occupational Safety & Health for Fire	3
FST 2001	Instructional Methodology	3
FST 2005	Fire Investigation I	3
FST 2006	Fire Company Supervision & Leadership (Fire Officer I)	3
FST 2007	Firefighting Strategy & Tactics II	3
FST 2051	Legal Aspects of Fire Service	3
FST 2055	Fire Service Management	3
FST 2057	Fire Department Administration	3
FST 2058	Wildland Fire Incident Management & Operations	3
FST 2059	Wildland Firefighting Strategy & Tactics	3
Elective	Choose twelve (12) hours from technical electives	12
		45

Total Credit Hours for Fire Service Management Degree Emphasis **60**

Technical Electives

FST 1000	Firefighter I	9
FST 1007	Hazardous Materials Operations (Level I)	3
FST 1010	Job Placement & Assessment	3
FST 1060	Candidate Physical Abilities Prep	3

Any other FST, FSW or PSM credits count for Technical Elective courses.

Certificate

Basic Firefighter

The Basic Firefighter program is designed to provide the student with basic firefighting skills and knowledge to help prepare one for an entry-level position in the fire service. The courses will provide skills and knowledge in hazardous materials, firefighting, and the emergency services as a whole.

Program Learning Outcomes

Upon completion of the Basic Firefighter certificate program, students should be able to:

- Discuss the various types of fires, prevention and extinguishment strategies, and personal protective equipment
- Analyze and respond to hazardous materials incidents
- Perform all critical physical tasks simulating actual job duties on the fireground
- Prepare for fire department entry level testing process to include oral board interview skills

FST 1000	Firefighter I	9
FST 1002	Principles/Emergency Services	3
FST 1003	Fire Behavior & Combustion	3
FST 1007	Hazardous Materials Operations (Level I)	3
FST 1010	Job Placement & Assessment	3
FST 1060	Candidate Physical Abilities Test Prep	3
Total Credit Hours		**24**

Additional information available on the Fire Science Technology Department website at www.pikespeak.edu/programs/fire-science-technology.

Fire Science Wildland

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Wildland Firefighting is a firefighting, emergency management and natural resources interdisciplinary career and profession. This degree will allow the student to develop the competencies and skills to enter this expanding career field and will allow the seasoned wildland firefighter to enhance their experience with an academic program. This degree will prepare you to operate in multiple agency jurisdictions, apply standardized wildland firefighting principles as identified by the National Wildland Coordinating Group; introduce you to the principles of emergency management preparedness, mitigation, response, and recovery; and prepare you to attain a career and to enhance a career in wildland firefighting and related disciplines.

A plan for entry into and completion of the Fire Science Wildland degree should be discussed with one of the Fire Science Coordinators or Faculty. This advising is needed to provide thorough information on the degree requirements and to align the student's experience and certifications to the degree for credit for prior learning, if appropriate, and to advise on the student's academic and career goals.

Program Learning Outcomes

Upon completion of the Fire Science Wildland degree program, students should be able to:

- Apply standardized wildland firefighting principles as identified by the National Wildland Coordinating Group (NWCG)
- Describe how multi-agency operations are conducted during wildland fire incidents
- Demonstrate basic wildland fire behavior
- Explain the principles of emergency management
- Demonstrate proper strategy and tactics based on current and expected fire behavior

General Education Courses

CIS 1018 or	Introduction to PC Applications	3
CSC 1005	Computer Literacy	(3)
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
MAT 1140	Career Math or higher	3
PSC 1011 or	American Government: SS1	3
PSY 1005	Psychology of Workplace Relationships	(3)
		15

Additional Required Courses

EMP 1001	Principles of Emergency Management	3
FST 1003	Fire Behavior & Combustion	3
FST 1009	Occupational Safety & Health for Fire	3
FST 2002	Strategy & Tactics	3
FST 2058	Wildland Fire Incident Management & Organization	3
FST 2059	Wildland Firefighting Strategy & Tactics	3
FSW 1053	S-290 Intermediate Wildland Fire Behavior	2

PSM 2000	National Incident Management System/Interagency Operations	3
Elective	Choose twenty-two (22) hours from technical electives	22
		45
Total Credit Hours		**60**

Technical Electives

Any other FST or FSW credits count for Technical Electives courses.

Health, Wellness, and Fitness

Associate of Applied Science Degree

Recommended basic skills courses are

- College Readiness in English
- College Readiness for Quantitative Literacy

The Associate of Applied Science Health, Wellness, and Fitness is a gateway for students interested in a career in a health, wellness, and fitness field. The program emphasizes the fundamentals of exercise science, nutrition, and health and wellness promotion. The Health, Wellness, and Fitness degree is the educational pathway for a career in the health and fitness industry as a personal trainer, specialized fitness instructor, worksite wellness coordinator, and health and wellness coaching.

Program Learning Outcomes

Upon completion of the Health, Wellness, and Fitness degree program, students should be able to:

- Conduct health, nutrition, and fitness assessments for diverse populations.
- Design behavioral change strategies aimed at promoting healthier lifestyles.
- Design and implement exercise programs to all populations.
- Explain whole person health and how it differentiates based on genetics, race, gender,
- environment, and aging.
- Implement basic managerial skills, including technical, conceptual, interpersonal communication, and decision-making skills

General Education Courses

BIO 1004	Biology: A Human Approach	4
or		
BIO 1111	General College Biology I with a lab: SC1	(5)
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication	(3)
or		
COM 2300	Intercultural Communication SS3	(3)
ENG 1021	English Composition I: CO1	3
or		
ENG 1031	Technical Writing I: CO1	(3)
MAT 1140	Career Math or higher	3
or		
MAT 1260	Introduction to Statistics: MA1	(3)
SOC 2018	Sociology of Diversity: SS3	3
		16-17

Additional Required Courses

HWE 1005	AHA Heartsaver First Aid CPR & AED	0.5
HWE 1019	Skills and Methods of Teaching Fitness Instruction	3
HWE 1050	Human Nutrition	3
HWE 1061	Fitness and Wellness	2

HWE 1062	Health and Wellness	3
HWE 1064	Weight Management and Exercise	2
HWE 1065	Introduction to Exercise Health Sciences	3
HWE 1068	Certified Personal Trainer Prep Course	3
HWE 2060	Sports Nutrition and Body Composition	3
HWE 2064	Health and Wellness Coaching	3
MAR 1060	Customer Service	3
PSY 1001	General Psychology I SS3	3
Elective	Choose thirteen (13) hours from the list below	13
		44.5
Total Credit Hours		**60.5-61.5**

Electives

BIO 2101	Human Anatomy & Physiology I with lab SC1	4
BIO 2102	Human Anatomy & Physiology II with lab SC1	4
HPR 1017	Anatomical Kinesiology	3
IHP 1000	Exploring Complementary Health	1
IHP 2050	Registered Yoga Teacher Training Level 200	10
IHP 2052	Mindfulness for Health and Wellness	2
PED 1002	Weight Training I	1
PED 1003	Weight Training II	2
PED 1010	Fitness Center Activity I	1
PED 1011	Fitness Center Activity II	1
PED 1040	Body Sculpting and Toning	1
PED 1041	Pilates I	1
PED 1042	Pilates II	1
PED 1043	Yoga I	1
PED 1044	Yoga II	1
PED 1061	Tai Chi I	1
PED 1062	Tai Chi II	1
PED 1063	Martial Arts I	1
PED 1064	Martial Arts II	1
PSY 2440	Human Growth and Development SS3	3

Certificates

Health and Wellness Coach Preparatory Program

The Health and Wellness Coach Preparatory Program certificate is designed to prepare students for a career in a health and wellness field. Students will develop skills on how to empower diverse populations to make healthy lifestyle changes that will optimize their health and wellbeing. Additionally, students will learn behavior change strategies and goal-setting techniques for adopting a healthier lifestyle, ethical cross-cultural communication skills, and to differentiate the health and wellness needs between race, ethnicity, social class, gender, age, ability status, and sexual identity.

Program Learning Outcomes

Upon completion of the Health and Wellness Coach Preparatory Program certificate program, students should be able to:

- Assess an individual's health status
- Analyze factors that influence behavior change strategies
- Integrate communication strategies
- Construct a behavior change plan with goal setting techniques

COM 1250	Interpersonal Communication	(3)
or		
COM 2300	Intercultural Communication SS3	(3)
HWE 1005	AHA Heartsaver First Aid CPR & AED	0.5
HWE 1062	Health and Wellness	3
HWE 2064	Health and Wellness Coaching	3
MAR 1060	Customer Service	3

SOC 2018	Sociology of Diversity: SS3	3
Elective	Choose one (1) credit hour from the list below	1
Total Credit Hours		**16.5**

Electives

PED 1041	Pilates I	1
PED 1043	Yoga I	1
PED 1061	Tai Chi I	1

Personal Trainer Preparatory Program

The Personal Trainer Preparatory Program certificate is designed for students who seek a career in personal training. Students will develop the skills and knowledge for designing and implementing a safe and effective exercise programs for diverse populations. Additionally, students will learn behavior change strategies and goal-setting techniques for implementing a safe and effective exercise program, ethical cross-cultural communication skills, and how to differentiate the exercise needs between race, ethnicity, social class, gender, age, ability status, and sexual identity.

Upon successful completion of the program students will be eligible to take a national certification exam with the American Council on Exercise (ACE), American Aerobic Association International\International Sports Medicine Association (AAAI/AISM), National Strength and Conditioning Association (NSCA), or the National Academy of Sports Medicine (NASM).

Program Learning Outcomes

Upon completion of the Personal Trainer Preparatory Program certificate program, students should be able to:

- Assess an individual's physical fitness status
- Apply behavior change strategies and goal-setting techniques for a safe and effective exercise program
- Describe the impact of physical activity on weight loss and management
- Design a safe exercise program for all populations
- Distinguish risk and legal ramifications pertaining to a personal trainer and injury prevention

HWE 1005	AHA Heartsaver First Aid CPR & AED	0.5
HWE 1019	Skills and Methods of Teaching Fitness Instruction	3
HWE 1062	Health and Wellness	3
HWE 1065	Introduction to Health and Exercise Science	3
HWE 1068	Certified Personal Trainer Prep Course	3
HWE 2060	Sports Nutrition and Body Composition	3
MAR 1060	Customer Service	3
Total Credit Hours		**18.5**

Yoga Teacher Training Program

The Yoga Teacher Training certificate is designed for students who seek a career as a Yoga instructor. Students will develop the skills and knowledge in the practice of Yoga with a focus in applicable anatomy, educational and physical requirements, and specific kinesthetic techniques necessary to become a professional Hatha Yoga instructor. Additionally, students will learn ethical cross-cultural communication skills, and how to differentiate the health-related modification needs for a diverse population.

Program Learning Outcomes

Upon completion of the Yoga Teacher Training Program certificate program, students should be able to:

- Teach classical Hatha Yoga poses (asanas)
- Perform classical Hatha Yoga poses (asanas)

- Implement the ethical responsibilities, scope of practice, and professionalism of a Hatha Yoga teacher
- Create necessary modifications to accommodate those with special limitations or conditions impacting their health and/or physical abilities

COM 1250	Interpersonal Communication	3
or		
COM 2300	Intercultural Communication SS3	(3)
or		
SOC 2018	Sociology of Diversity: SS3	(3)
MAR 1060	Customer Service	3
or		
IHP 1000	Exploring Complementary Health	(1)
or		
IHP 2052	Mindfulness for Health and Wellness	(2)
HWE 1005	AHA Heartsaver First Aid CPR & AED	0.5
IHP 2050	Registered Yoga Teacher Training Level 200	10
Total Credit Hours		**16.5**

Additional information available on the Health and Wellness Department website at www.pikespeak.edu/programs/health-and-wellness.

Heating, Air Conditioning and Refrigeration Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This program prepares students to enter the heating, air conditioning and refrigeration field. This field of work involves different trade disciplines. The two-year program of core courses trains students in residential and commercial heating, ventilation, air conditioning, and refrigeration. The emphasis will be on the servicing and maintenance of equipment found in residences, commercial buildings, and large facilities.

The AAS degree should enhance students' initial entry placement and better prepare them for upward mobility within any of the three option areas.

All students should schedule advising appointments with the Heating, Air Conditioning and Refrigeration program advisor before enrolling in classes.

For success in this program the faculty recommends proficiency in math, reading and English.

Students may wish to attend summer classes to fulfill their general education course requirements, thereby reducing their fall and spring semester loads.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Heating, Air Conditioning and Refrigeration Technology degree program, students should be able to:

- Identify problems in the operation of commercial and residential heating electro-mechanical systems
- Measure, calculate and interpret a wide range of commercial and residential refrigeration systems

- Follow safety policies and procedures related to the HVAC field
- Troubleshoot commercial and residential heating electro-mechanical systems
- Interpret, analyze, and evaluate the proper operation of commercial Air Conditioning roof top equipment

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1250	Interpersonal Communication: SS3	3
ENG 1031	Technical Writing I: CO1	3
MAT 1140	Career Math	3
PSY 1005	Psychology of Workplace Relationships	3
		15

Additional Required Courses

HVA 1002	Basic Refrigeration	4
HVA 1005	Electricity for HVAC/R	4
HVA 1010	Fundamentals of Gas Heating	4
HVA 1011	Piping Skills for HVAC	4
HVA 1013	Refrigerant Recovery Training	1
HVA 1018	Customer Soft Skills (Customer Services & Ethics)	2
HVA 1032	Air Conditioning & Refrigeration Controls	4
HVA 1041	Sheet Metal Fabrication	2
or		
HVA 2080	Internship	(2)
HVA 1042	Residential Air Conditioning	4
HVA 2001	Heating for Commercial	3
HVA 2004	Direct Digital Controls	4
HVA 2006	Mechanical Codes	4
HVA 2033	Advanced Refrigeration	4
HVA 2041	Advanced Air Conditioning	3
HVA 2047	Hot Water Heating Systems	4
HVA 2062	Residential Heat Pump Service	2
		53
Total Credit Hours		**68**

Certificates

Direct Digital Controls

Students completing the Direct Digital Controls certificate will gain skills necessary for entry level employment in the area of environmental controls as they pertain to the HVAC systems found in modern commercial and industrial buildings.

Students entering this certificate program will have demonstrated prior work experience of no less than four years or completion of an Associates of Applied Science Degree in HVAC or Facilities Maintenance Technology from an accredited college.

Program Learning Outcomes

Upon completion of the Direct Digital Controls certificate program, students should be able to:

- Install building automation devices
- Operate and modify an installed building automation system
- Set up and program a building automation system

ELT 1001	Survey of Electronics	3
HVA 2051	Building Automation I, Installer	4
HVA 2052	Building Automation II, Service	4
HVA 2053	Building Automation III, Advanced Operations	4
Total Credit Hours		**15**

Industry Upgrade

The Industry Upgrade certificate is designed for technicians currently employed in the HVAC&R field who want to upgrade their skills. The courses within this certificate option are constantly updated to include discussion of new technologies and equipment found in large modern facilities.

Program Learning Outcomes

Upon completion of the Industry Upgrade certificate program, students should be able to:

- Analyze air, temperature, and electrical measurements to service the operation of commercial Air Conditioning roof top equipment
- Evaluate water, steam, temperature, and flow to service the steam boiler
- Calculate temperatures and fluid flow for proper heat operation
- Evaluate the building control systems that are controlled by DDC (direct digital controls)

HVA 2001	Heating for Commercial	3
HVA 2004	Direct Digital Controls	4
HVA 2033	Advanced Refrigeration	4
HVA 2041	Advanced Air Conditioning	3
HVA 2062	Residential Heat Pump Service	2
HVA 2080	Internship	2
Total Credit Hours		**18**

Residential HVAC

The Residential HVAC certificate option provides a student with entry-level skills as a helper or apprentice in the installation, repair, and service of residential heating, ventilating, air conditioning, and refrigeration equipment found in today's residences.

Program Learning Outcomes

Upon completion of the Residential HVAC certificate program, students should be able to:

- Install, repair, and service residential heating, ventilating, air conditioning, and refrigeration (HVAC) equipment
- Determine proper equipment sizing based on heating and cooling load calculations
- Apply the Uniform Mechanical Code to HVAC equipment
- Assist clients through the entire repair process (e.g., customer service)

HVA 1002	Basic Refrigeration	4
HVA 1005	Electricity for HVAC/R	4
HVA 1010	Fundamentals of Gas Heating	4
HVA 1011	Piping Skills for HVAC	4
HVA 1013	Refrigerant Recovery Training	1
HVA 1018	Customer Soft Skills (Customer Services & Ethics)	2
HVA 1032	Air Conditioning & Refrigeration Controls	4
HVA 1042	Residential Air Conditioning	4
HVA 1046	Residential Load Calculation & Duct Design	4
HVA 2006	Mechanical Codes	4
Total Credit Hours		**35**

Additional information available on the Heating, Air Conditioning and Refrigeration Technology Department website at www.pikespeak.edu/programs/hvac.

Industrial Mechatronics Maintenance Technology

Associate of Applied Science Degree

Industrial Mechatronics Maintenance Technicians are responsible for installing, maintaining, and repairing commercial and industrial machinery and systems in a commercial building or a manufacturing plant. Technicians ensure the proper operation of machinery and mechanical equipment by completing routine service and preventative maintenance requirements on all machines through testing, troubleshooting and problem-solving.

Students study the basic operations common to production equipment used in industry such as electricity, electronics, pneumatics, hydraulics, and mechanical power. Other skills include interpretation of working drawings, and a knowledge base of basic carpentry, plumbing, and safety in the workplace. Coursework is designed to prepare students for the National Institute of Metalworking Skills (NIMS) certificate exams.

Program Learning Outcomes

Upon completion of the Industrial Mechatronics Maintenance Technology degree program, students should be able to:

- Demonstrate safe work procedures
- Maintain industrial equipment and systems
- Troubleshoot industrial equipment and systems
- Repair and service industrial equipment and systems
- Communicate technical information
- Interpret working drawings for various industries
- Test and control common industrial processes through a variety of techniques and instruments (e.g., motors, generators, regulators, sensors, transducers)
- Construct, test, and troubleshoot electronic circuits
- Perform tests and operate machinery to ensure proper operation
- Adjust and calibrate equipment and machinery to optimal specifications
- Differentiate between the operations and function of various industrial circuits

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1150	Public Speaking	3
or		
COM 2250	Organizational Communication	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
MAT 1140	Career Math	3
PSY 1001	General Psychology I: SS3	3
or		
PSY 1005	Psychology of Workplace Relationships	(3)
or		
SPA 1001	Conversational Spanish I	(3)
		15

Additional Required Courses

CON 1057	National Center for Construction Education & Research Core	5
CON 1062	National Center for Construction Education & Research Electrical I	6
CON 1063	National Center for Construction Education & Research Electrical II	

CON 1064	National Center for Construction Education & Research Electrical III	6
CON 1065	National Center for Construction Education & Research Electrical IV	6
CON 2080	Internship	1
EIC 2330	Instrument & Process Control II	4
ELT 1002	Soldering	1
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2357	Sensors & Transducers	3
ELT 2358	Programmable Logic Controllers	3
ELT 2359	Advanced Programmable Logic Controllers	3
ELT 2362	Introduction to Microcontrollers	3
OSH 1310	10-Hour Construction Industry Standards	1
		55
Total Credit Hours		**70**

Certificates

Electrical

Training provided through the Industrial Mechatronics Maintenance Technology, Electrical Certificate program prepares students for a career in the maintenance of large electrical, electronic, hydraulic, and pneumatic manufacturing systems. Students will develop skills to define, integrate, install, program, and maintain complex control systems. Coursework is designed to prepare students for the National Institute of Metalworking Skills (NIMS) certificate exams.

Program Learning Outcomes

Upon completion of the Electrical certificate program students should be able to:

- Describe the correct use of electrical measurement equipment, including digital multimeters, oscilloscopes, and various power meters
- Differentiate between AC and DC circuity, using standard mathematical constructs
- Explain basic electronic principles
- Install, troubleshoot, and maintain digital circuitry utilizing ladder logic
- Apply effective oral and written communication skills
- Work effectively in a team-based environment
- Create and modify original and existing Programmable Logic Controllers (PLC) programs
- Assemble and wire transformers and rotating machinery
- Identify industrial electrical hardware, codes, and various electrical/electronic systems

CON 1057	National Center for Construction Education & Research Core	5
CON 1062	National Center for Construction Education & Research Electrical I	6
CON 1063	National Center for Construction Education & Research Electrical II	6
CON 1064	National Center for Construction Education & Research Electrical III	6
CON 1065	National Center for Construction Education & Research Electrical IV	6
OSH 1310	10-Hour Construction Industry Standards	1
		30

Electronics

Training provided through the Industrial Mechatronics Maintenance Technology, Electronics Certificate program prepares students for a career in various entry-level positions in the field of electronics and other related technology industries including technical sales, manufacturing, and quality control. The certificate offers a broad range of electronics courses with emphasis on electronics-related analysis, operation, application, installation, and service. Coursework is designed to prepare students for the National Institute of Metalworking Skills (NIMS) certificate exams. Because most courses have prerequisites, students should consult with the Program Coordinator prior to enrolling.

Program Learning Outcomes

Upon completion of the Electronics certificate program, students should be able to:

- Apply electrical safety procedures in the field or the laboratory

- Demonstrate proper soldering techniques and the safe use of standard hand tools and test instrumentation

- Analyze, maintain, troubleshoot and repair electrical or electronic equipment with a minimum of supervision

- Utilize technical and service manuals, to identify wiring, schematic, and printed circuit board diagrams

- Summarize concepts of matter and energy; and describe how the concepts relate to the components that generate, carry or control electricity

- Differentiate between basic electric, magnetic, and electromagnetic field relationships

- Identify electrical quantities, symbols, units, and principles; and explain their interrelationships and application

- Distinguish between series, parallel, and series-parallel DC, AC and RF networks

- Construct single time constant circuits, single and three-phase steady state AC circuits and RLC resonant circuits

- Design contemporary wireless communications system applications, operations, and analysis

Course	Title	Credits
CON 1057	National Center for Construction Education & Research Core	5
EIC 2330	Instrument & Process Control II	4
ELT 1002	Soldering	1
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2357	Sensors & Transducers	3
ELT 2358	Programmable Logic Controllers	3
ELT 2359	Advanced Programmable Logic Controllers	3
ELT 2362	Introduction to Microcontrollers	3
OSH 1310	10-Hour Construction Industry Standards	1
Total Credit Hours		**30**

Interior Design

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

As a PPSC interior design student you will have the opportunity to develop an understanding of the fundamentals of design, drafting, textiles, finish materials, graphic communication, space planning, residential design, commercial design and sustainability. Your studies will also include technical courses in AutoCAD and Revit software as well as courses that will prepare you for the industry. Your educational experience will include opportunities for hands-on experience and internships.

Program Learning Outcomes

Upon completion of the Interior Design degree program, students should be able to:

- Produce a comprehensive set of construction documents
- Produce presentation boards according to industry standards
- Create and present a project in front of a panel of industry experts
- Follow the complete design process, to include Programming, Location/Demographic Research, Concept Development, Space Planning, Construction Documentation, and Specifications

General Education Courses

Course	Title	Credits
ART 1110	Art Appreciation: AH1	3
or		
ART 1201	Drawing I	(3)
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
CSC 1005	Computer Literacy	3
or		
CIS 1018	Introduction to PC Applications	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
MAT 1140	Career Math or higher	3
or		
Elective	AAS General Education Math course	(3)
		15

Additional Required Courses

Course	Title	Credits
CAD 1105	AutoCAD for Interiors	4
CAD 2205	Advanced CAD for Interiors	3
IND 1100	Interior Design Fundamentals	4
IND 1102	History of Interior Design	3
IND 2089	Capstone: Advanced Design	4
IND 2200	Drafting for Interiors	4
IND 2202	Perspective & Rendering Technique	3
IND 2206	Interior Finishes	2
IND 2207	Interior Design II: Space Planning & Human Factors	3
IND 2208	Residential Design	4
IND 2211	Commercial Design II	4
IND 2300	Interior Construction	4
IND 2301	Interior Design III: Materials, Details, Codes & Specs	3
IND 2500	Introduction to Kitchen & Bath Design	3
IND 2701	Professional Practice for Interior Designers	2

IND 2702	IND Portfolio Presentations	3
Elective	Choose seven (7) hours from the list below	7
		60
Total Credit Hours		**75**

Electives

AEC 2300	Sustainable Building Systems	3
ART 1005	Digital Art Foundations I	3
CAD 1110	Sketchup	3
CAD 2220	Revit Architecture	3
CAD 2221	Advanced Revit Architecture	3
CAD 2540	3DS Max	3
IND 2078	Workshop: Design Portfolio	1
IND 2080	Internship	3
IND 2080	Internship	4
IND 2209	Commercial Design I	2
IND 2210	Accessorizing	3
IND 2703	Sustainable Design	3
MGD 1011	Adobe Photoshop I	3
MGD 1012	Adobe Illustrator I	3

Additional information available on the Interior Design Department website at www.pikespeak.edu/interior-design.

Machining Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

There are two AAS degree emphasis in the Machining Technology program, Machining Technology Emphasis and Advanced Manufacturing Emphasis. These two-year programs are designed to provide individuals with entry level machining and technology skills, as well as addressing the needs of those seeking upgrade training for the purpose of continuing employment, employment upgrades, and/or promotions.

The Machining Technology emphasis degree will advance their hands-on fundamental skills of machining using MasterCAM 2D and 3D software, while developing applied math skills and problem-solving techniques.

The Advanced Manufacturing emphasis will provide training in technology using software such as SolidWorks, MasterCAM 2D and 3D, and CamWorks. The emphasis also offers courses in Geometric Dimensioning and Tolerance (GD &T) and 3D Printing for prototyping.

Students should schedule a meeting with the Machining Technology program advisor prior to enrolling in classes. During this meeting, student's goals and preparedness can be assessed.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Students must meet with an advisor to select appropriate technical electives.

Program Learning Outcomes

Upon completion of the Machining degree program, students should be able to:

- Maintain a safe work area by demonstrating safety knowledge and proper use of hand tools and machining equipment

- Read and interpret industry prints, using current drawing standards in dimensioning, symbology, linetypes, lineweights, drawing notes for working drawings, engineering assembly and design related manufacturing drawings
- Demonstrate basic and advanced measurement processes and skills utilizing common measuring instruments to ensure projects are within given specifications
- Apply the principles and theory of manufacturing processes and basic operation manual machining operations using lathes, mills, drill presses and surface grinders
- Determine part function and relationship to each other, to include tolerancing of parts for assemblies while calculating mating part conditions to guarantee parts fits
- Create two-dimensional objects using computer-aided design/computer-aided manufacturing (CAD/CAM) software and processes for mills and machining tool paths
- Generate Numeric Control (NC) code using G-codes to machine parts to specifications
- Set up, program, and operate computerized numerical control (CNC) mills and machining centers in accordance with NIMS standards
- Create rapid prototypes using additive manufacturing to include identifying vendor parts to make a functional prototype

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 2250	Organizational Communication	3
ENG 1031	Technical Writing I: CO1 or higher	3
MAT 1140	Career Math or higher	3
Three (3) additional credit hours from list below		3
		15

Select three (3) credit hours

BUS 1015	Introduction to Business	3
COM 1250	Interpersonal Communication: SS3	3
PSY 1005	Psychology of Workplace Relationships	3

Emphasis Areas

Advanced Manufacturing

CAD 1100	Print Reading for Computer Aided Drafting	3
or		
MAC 1002	Print Reading for Machinists	(3)
CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
CAD 2660	3D Printing/Additive Manufacturing	3
EGT 2305	Geometric Dimension & Tolerance	3
MAC 1000	Machine Shop Safety	1
MAC 1001	Introduction to Machine Shop	3
MAC 1010	Introduction to Engine Lathe	3
MAC 1011	Intermediate Engine Lathe	3
MAC 1020	Introduction to Milling Machine	3
MAC 1021	Intermediate Mill Machine	3
MAC 2005	Introduction to CNC Milling Operations	3
MAC 2006	CNC Milling Operations II	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3
MAC 2052	Practical Metallurgy	3
MTE 1130	Metrology	3
		49

| **Total Credit Hours for Advanced Manufacturing Degree Emphasis** | **64** |

Machining Technology

MAC 1000	Machine Shop Safety	1
MAC 1001	Introduction to Machine Shop	3
MAC 1002	Print Reading for Machinists	3
or		
CAD 1100	Print Reading for Computer Aided Drafting	(3)
MAC 1010	Introduction to Engine Lathe	3
MAC 1011	Intermediate Engine Lathe	3
MAC 1012	Advanced Engine Lathe	3
MAC 1020	Introduction to Milling Machine	3
MAC 1021	Intermediate Mill Machine	3
MAC 1022	Advanced Milling Machine Operations	3
MAC 2005	Introduction to CNC Milling Operations	3
MAC 2006	CNC Milling Operations II	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3
MAC 2045	CAD/CAM 3D	3
MAC 2046	CAD/CAM 3D Lab	3
MAC 2052	Practical Metallurgy	3
MTE 1130	Metrology	3
		49
Total Credit Hours for Machining Technology Degree Emphasis		**64**

Recommended Technical Elective

MAC 2080	Machining Internship	3

Certificates

*Advanced Machining Technology

This Advanced Machining Technology certificate provides students with entry level machining skills. Students work on lab exercises covering robotic machinery, as well as a variety of three-dimensional lab exercises on robotic machinery. Students also learn about the behavior of metals and are exposed to practical metallurgy. This certificate is one of two certificates that build on each another.

Program Learning Outcomes

Upon completion of the Advanced Machining Technology certificate program, students should be able to:

- Maintain a safe work area by demonstrating safety knowledge and proper use of hand tools and machining equipment
- Read and interpret industry prints, using current drawing standards in dimensioning, symbology, linetypes, lineweights, drawing notes for working drawings, engineering assembly and design related manufacturing drawings
- Demonstrate basic and advanced measurement processes and skills utilizing common measuring instruments to ensure projects are within given specifications
- Apply the principles and theory of manufacturing processes and basic operation manual machining operations using lathes, mills, drill presses and surface grinders
- Determine part function and relationship to each other, to include tolerancing of parts for assemblies while calculating mating part conditions to guarantee parts fits
- Create two-dimensional objects using computer-aided design/computer-aided manufacturing (CAD/CAM) software and processes for mills and machining tool paths
- Generate Numeric Control (NC) code using G-codes to machine parts to specifications
- Set up, program, and operate computerized numerical control (CNC) mills and machining centers in accordance with NIMS standards

- Explain the changes in metallurgical characteristics during heating, cooling, shaping, and forming

MAC 1012	Advanced Engine Lathe	3
MAC 1022	Advanced Milling Machine Operations	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3
MAC 2045	CAD/CAM 3D	3
MAC 2046	CAD/CAM 3D Lab	3
MAC 2052	Practical Metallurgy	3
Total Credit Hours		**21**

**Advanced Manufacturing Machining

This Advanced Manufacturing Machining certificate provides students with entry level machining and technology skills. Students learn to use AutoCAD and are introduced to advanced applications of 3D parametric software, with the ability to blend the virtual and real design worlds together through the use of 3D CAD Modeling, and 3D Printing. Students also learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. This certificate is one of four certificates that build on each other across three semesters.

Program Learning Outcomes

Upon completion of the Advanced Manufacturing Machining certificate program, students should be able to:

- Maintain a safe work area by demonstrating safety knowledge and proper use of hand tools and machining equipment
- Read and interpret industry prints, using current drawing standards in dimensioning, symbology, linetypes, lineweights, drawing notes for working drawings, engineering assembly and design related manufacturing drawings
- Demonstrate basic and advanced measurement processes and skills utilizing common measuring instruments to ensure projects are within given specifications
- Apply the principles and theory of manufacturing processes and basic operation manual machining operations using lathes, mills, drill presses and surface grinders
- Determine part function and relationship to each other, to include tolerancing of parts for assemblies while calculating mating part conditions to guarantee parts fits
- Create two-dimensional objects using computer-aided design/computer-aided manufacturing (CAD/CAM) software and processes for mills and machining tool paths
- Generate Numeric Control (NC) code using G-codes to machine parts to specifications
- Set up, program, and operate computerized numerical control (CNC) mills and machining centers in accordance with NIMS standards
- Apply geometric dimensioning and tolerancing (GDT) in machining/drafting
- Produce industrial 2D working drawings and 3D models using SolidWorks Software based on industry standards to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Create rapid prototypes using additive manufacturing to include identifying vendor parts to make a functional prototype
- Explain the changes in metallurgical characteristics during heating, cooling, shaping, and forming

CAD 1100	Print Reading for Computer Aided Drafting	3
or		
MAC 1002	Print Reading for Machinists	(3)
CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
CAD 2660	3D Printing/Additive Manufacturing	3
EGT 2305	Geometric Dimension & Tolerance	3
MAC 1000	Machine Shop Safety	1
MAC 1001	Introduction to Machine Shop	3
MAC 1010	Introduction to Engine Lathe	3
MAC 1020	Introduction to Milling Machine	3
MAC 2005	Introduction to CNC Milling Operations	3
MAC 2006	CNC Milling Operations II	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3
MAC 2052	Practical Metallurgy	3
MTE 1130	Metrology	3
Total Credit Hours		**43**

*Basic Machining Technology

This Basic Machining Technology certificate provides students with entry level machining and technology skills. Students learn about the hazards of a machine shop including safety procedures, use of bench tools, layout tools, power saws, and various hand tools related to the machine shop. Students learn how to read and understand industrial prints, as well as basic drafting and print standards. This certificate is one of two certificates that build on each another.

Program Learning Outcomes

Upon completion of the Basic Machining Technology certificate program, students should be able to:

- Maintain a safe work area by demonstrating safety knowledge and proper use of hand tools and machining equipment
- Read and interpret industry prints, using current drawing standards in dimensioning, symbology, linetypes, lineweights, drawing notes for working drawings, engineering assembly and design related manufacturing drawings
- Demonstrate basic and advanced measurement processes and skills utilizing common measuring instruments to ensure projects are within given specifications
- Apply the principles and theory of manufacturing processes and basic operation manual machining operations using lathes, mills, drill presses and surface grinders
- Perform basic lathe operations (e.g., shaping, drilling, sanding, knurling, turning, cutting, and deformation)
- Operate a vertical milling machine (e.g., reaming, drilling, boring) within required tolerances

MAC 1000	Machine Shop Safety	1
MAC 1001	Introduction to Machine Shop	3
MAC 1002	Print Reading for Machinists	3
or		
CAD 1100	Print Reading for Computer Aided Drafting	(3)
MAC 1010	Introduction to Engine Lathe	3
MAC 1011	Intermediate Engine Lathe	3
MAC 1020	Introduction to Milling Machine	3
MAC 1021	Intermediate Mill Machine	3
Total Credit Hours		**19**

**Basic Manufacturing Machining

This Basic Manufacturing Machining certificate provides students with entry level machining and technology skills. Students learn about the hazards of a machine shop including safety procedures, use of bench tools, layout tools, power saws, and various hand tools related to the machine shop. Students also learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. This certificate is one of four certificates that build on each other across three semesters.

Program Learning Outcomes

Upon completion of the Basic Manufacturing Machining certificate program, students should be able to:

- Maintain a safe work area by demonstrating safety knowledge and proper use of hand tools and machining equipment
- Read and interpret industry prints, using current drawing standards in dimensioning, symbology, linetypes, lineweights, drawing notes for working drawings, engineering assembly and design related manufacturing drawings
- Demonstrate basic and advanced measurement processes and skills utilizing common measuring instruments to ensure projects are within given specifications
- Produce industrial 2D working drawings and 3D models using SolidWorks Software based on industry standards to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Explain the changes in metallurgical characteristics during heating, cooling, shaping, and forming

CAD 1100	Print Reading for Computer Aided Drafting	3
or		
MAC 1002	Print Reading for Machinists	(3)
CAD 2455	SolidWorks/Mechanical	3
MAC 1000	Machine Shop Safety	1
MAC 1001	Introduction to Machine Shop	3
MAC 2052	Practical Metallurgy	3
MTE 1130	Metrology	3
Total Credit Hours		**16**

**CNC Machining

This CNC Machining certificate provides students with entry level machining and technology skills. Students learn how to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models, and create and edit CNC mill programs. Additionally, students learn how to interpret and apply geometric dimensioning and tolerancing (GDT) in machining or drafting. This certificate is one of four certificates that build on each other across three semesters.

Program Learning Outcomes

Upon completion of the CNC Machining certificate program, students should be able to:

- Determine part function and relationship to each other, to include tolerancing of parts for assemblies while calculating mating part conditions to guarantee parts fits
- Create two-dimensional objects using computer-aided design/computer-aided manufacturing (CAD/CAM) software and processes for mills and machining tool paths
- Generate Numeric Control (NC) code using G-codes to machine parts to specifications
- Set up, program, and operate computerized numerical control (CNC) mills and machining centers in accordance with NIMS standards
- Apply geometric dimensioning and tolerancing (GDT) in machining/drafting
- Produce industrial 2D working drawings and 3D models using SolidWorks Software based on industry standards to create advanced models, parts, assemblies, and related documents
- Create rapid prototypes using additive manufacturing to include identifying vendor parts to make a functional prototype

CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
CAD 2660	3D Printing/Additive Manufacturing	3
EGT 2305	Geometric Dimension & Tolerance	3
MAC 2005	Introduction to CNC Milling Operations	3
MAC 2006	CNC Milling Operations II	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3
Total Credit Hours		**24**

**Intermediate Manufacturing Machining

This Intermediate Manufacturing Machining certificate provides students with entry level machining and technology skills. Students perform basic lathe operations and learn about 2-axis machining, 3-axis machining wire frame and surface modeling, lathe programming, DNC systems, and advanced applications of 3D parametric software. This certificate is one of four certificates that build on each other across three semesters.

Program Learning Outcomes

Upon completion of the Intermediate Manufacturing Machining certificate program, students should be able to:

- Perform basic lathe operations (e.g., shaping, drilling, sanding, knurling, turning, cutting, and deformation)
- Operate a vertical milling machine (e.g., reaming, drilling, boring) within required tolerances
- Create two-dimensional objects using computer-aided design/computer-aided manufacturing (CAD/CAM) software and processes for mills and machining tool paths
- Produce industrial 2D working drawings and 3D models using SolidWorks Software based on industry standards to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)

CAD 2456	Advanced SolidWorks	3
MAC 1010	Introduction to Engine Lathe	3
MAC 1020	Introduction to Milling Machine	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3
Total Credit Hours		**15**

Machining for Welders

This Machining for Welders certificate provides students with entry level machining and technology skills. Students learn about the hazards of a machine shop including safety procedures, use of various tools related to the machine shop, and practical metallurgy Additionally, students learn how to interpret weld symbols on blueprints, identify proper layout methods and tools, and proper joint design necessary for various welding processes.

Program Learning Outcomes

Upon completion of the Machining for Welders certificate program, students should be able to:

- Read and interpret welding blueprints using current drawing standards in dimensioning, symbology, linetypes, lineweights, drawing notes for working drawings, engineering assembly and design related manufacturing drawings (e.g., weld symbols, joint designs)
- Perform basic lathe operations (e.g., shaping, drilling, sanding, knurling, turning, cutting, and deformation)
- Operate a vertical milling machine (e.g., reaming, drilling, boring) within required tolerances
- Explain changes in metallurgical characteristics during heating, cooling, shaping, and forming

MAC 1000	Machine Shop Safety	1
MAC 1001	Introduction to Machine Shop	3
MAC 1010	Introduction to Engine Lathe	3
MAC 1020	Introduction to Milling Machine	3
MAC 2052	Practical Metallurgy	3
WEL 1006	Blueprint Reading for Welders & Fitters	4
Total Credit Hours		**17**

*Note: These certificates build on one another. There is also the opportunity to receive more certifications should the student pass the exam NIMS Level One Certification.

**Note: The following certificates build on one another. After three semesters a student would achieve the four certificates below. There is also the opportunity to receive two more certifications should the student pass the exams: CSWA: Certification SolidWorks Associate National Certification and a NIMS Level One Certification.

Additional information available on the Machining Technology Department website at www.pikespeak.edu/programs/machining-technology.

Medical Assistant

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

One Associate of Applied Science degree option and one certificate option are available. The area of Medical Assisting is designed to prepare individuals to assist with clinical and administrative functions as employees within the ambulatory health care setting. All students become familiar with multiple medical diagnostic and treatment procedures commonly performed in the ambulatory setting including phlebotomy, laboratory testing, respiratory testing and treatments, cast care, wound care, medication dosage calculation and administration, performing EKG (electrocardiogram) while interacting with patients and their needs.

Students not meeting a course prerequisite must have permission of the program coordinator to enroll. Students must have a grade of C or better in all classes to pass program/certification requirements.

Internship courses (MAP 1083 and MAP 2080) require additional considerations prior to enrollment, which include:

- Meeting with program coordinator in person the semester prior to internship for clearance;
- Proof of vaccines or blood titers for: tuberculin skin test, proof of measles, rubella and rubeola, proof of hepatitis B, current year flu vaccination, chickenpox (Varicella), a current tetanus, and COVID vaccinations if completed (may be required depending on site);
- Obtaining a physical exam by their private physician at their own cost;
- PPSC approved criminal background checks and drug screening on all students;
- For specific disqualifiers on the background investigation, students should contact a MOT faculty advisor;
- Current AHA CPR-BLS certification; online certifications are not accepted.

Failure to pass the criminal background or drug screen test will result in the inability to complete the desired certification or degree.

The criminal background check and drug screening process is completed online through the PPSC Human Resources Department, with associated cost for the background check and urine drug screening services. Further information is available on the program home page and will be provided upon advising with the program coordinator.

Students must be at least 18 years of age to qualify for the following courses within these programs: HPR 1020, HPR 2020, MAP 1083, MAP 2038, MAP 2040, and MAP 2080, or MOT 1081 and MOT 1082. See program advisor for details.

HPR 1039 Medical Terminology must be completed in the students initial (first) term.

Program Learning Outcomes

Upon completion of the Medical Assistant degree program, students should be able to:

- Identify and describe body system structures and/or, disorders and/or diseases
- Discuss legal and/or ethical issues as applicable to medical practices
- Demonstrate effective communication skills
- Perform medical administrative and/or financial tasks
- Perform accepted clinical and/or laboratory skills for the ambulatory care setting

Certificate or degree completion offers the student the opportunity to take the National Medical Assisting Registry Exam with American Medical Technologists (AMT) for certification as a Registered Medical Assistant (RMA).

The medical assistant certificate and degree programs utilize the Medical Assistant Exam Review Board (MAERB) guidelines for program/student assessments, to prepare competent entry level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Medical Assistant

This degree is designed to prepare individuals to work in both administrative and clinical areas of physician's office or outpatient medical clinic. Students successfully completing this degree program will be able to perform the administrative tasks of a medical receptionist and work in the clinical areas by providing assistance with physical examinations, diagnostic tests, and treatment procedures.

Students not meeting a course prerequisite must have permission of the program coordinator to enroll.

Program Prerequisite:

HPR 1011 CPR for Professionals or current active CPR (cardiopulmonary resuscitation) certification from AHA (American Heart Association) approved training plan. Online CPR training certification is not accepted.

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
COM 2250	Organizational Communication	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
MAT 1140	Career Math	3
or		
MAT 1160	Financial Mathematics	(3)
PSY 1001	General Psychology I: SS3	3
or		
PSY 1005	Psychology of Workplace Relationships	(3)
		15

Additional Required Courses

HPR 1008	Law & Ethics for Health Professionals	2
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
MAP 1010	Medical Office Administration	4
MAP 1020	Medical Office Financial Management	4
MAP 1050	Pharmacology for Medical Assistants	3
MAP 1083	Medical Assistant Internship	5
MAP 2038	Medical Assisting Laboratory	4
MAP 2040	Medical Assisting Clinical Skills	4
MAP 2069	Review for Medical Assistant National Examination	1
MOT 1015	Electronic Medical Office Records	3
MOT 1025	Basic Medical Sciences I	3
MOT 1026	Basic Medical Sciences II	3
MOT 1027	Basic Medical Sciences III	3
MOT 1036	Introduction to Clinical Skills	3
		46
Total Credit Hours		**61**

Certificate

Medical Assistant

This certificate is designed to prepare individuals to work in clinics or physicians' offices as clinical assistants. Successful graduates from this program will be able to provide assistance with physical examinations, diagnostic tests, in-office laboratory testing and treatment procedures. All credits from this certificate may be applied to the Medical Assistant AAS degree program.

Students may complete program prerequisite courses concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have permission of the program coordinator to enroll.

A list of clinical and administrative duties by the American Association of Medical Assistants are included at https://www.aama-ntl.org/medical-assisting/what-is-a-medical-assistant.

Additional Internship Prerequisites:

HPR 1011 CPR for Professionals or current active CPR (cardiopulmonary resuscitation) certification through American Heart Association approved training plan. Online CPR training certification is not accepted.

Program Prerequisites

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
or		
COM 1150	Public Speaking	(3)
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
COM 2250	Organizational Communication	(3)

Program Requirements

HPR 1008	Law & Ethics for Health Professionals	2
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
MAP 1010	Medical Office Administration	4
MAP 1020	Medical Office Financial Management	4
MAP 1050	Pharmacology for Medical Assistants	3
MAP 2038	Medical Assisting Laboratory	4
MAP 2040	Medical Assisting Clinical Skills	4
MAP 2069	Review for Medical Assistant National Examination	1
MAP 2080	Internship	4
MOT 1025	Basic Medical Sciences I	3
MOT 1026	Basic Medical Sciences II	3
MOT 1027	Basic Medical Sciences III	3
MOT 1036	Introduction to Clinical Skills	3
Total Credit Hours		**42**

Additional information available on the Medical Assistant Department website at www.pikespeak.edu/programs/medical-assistant.

Medical Office Technology

Certificates

Medical Reception & Medical Coding certificate programs are designed to prepare individuals to assist with administrative functions as employees within the Medical or Clinical Office setting. All students become familiar with the health care system, medical terminology, and interpersonal relationships. Student will learn the administrative skills necessary for proper functioning of a medical office to include data entry into electronic medical records, HIPAA security, financial management, referrals, prior authorizations, coding for reimbursement.

Internship course (MAP 2080) require additional considerations prior to enrollment, which include:

- Meeting with program coordinator in person the semester prior to internship for clearance;
- Proof of vaccines or blood titers for: tuberculin skin tests, proof of measles, rubella and rubeola, proof of hepatitis B, current year flu vaccination, chickenpox (Varicella), and a current tetanus;
- Obtaining a physical exam by their private physician at their own cost;
- Criminal background checks on all students;
- For specific disqualifiers on the background investigation, students should contact a MOT faculty advisor;
- Students who do not obtain the PPSC approved criminal background investigation will not be able to enroll in internship class;

- Take and pass drug and alcohol screening prior to their internship;
- Current CPR certification.

Failure to pass the criminal background or drug screen test will result in the inability to complete the desired certification or degree.

The criminal background check and drug screening process is completed online through the PPSC Human Resources Department, with associated cost for the background check and urine drug screening services. Further information is available on the program home page and will be provided upon advising with the program coordinator.

Students must be at least 18 years of age to qualify for internship class (MAP 2080) within this program. See program advisor for details.

Prepare competent entry-level Medical Assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Medical Coding Specialist

This certificate is designed to train students to code and bill physician services in the ambulatory care settings. This program prepares the student to take the National Accrediting exam with AHIMA &/or AAPC. Some credits from this Medical Coding Certificate program may be applied to the Medical Assistant AAS degree.

Program Learning Outcomes

Upon completion of the Medical Coding Specialist certificate program, students should be able to:

- Illustrate the normal functions and common pathologies of body systems (e.g., cardiovascular, respiratory, neurological)
- Interpret the use and side effects of drugs commonly used to treat diseases affecting body systems
- Analyze information from medical records and code it for insurance purposes

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
HPR 1008	Law & Ethics for Health Professionals	2
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
MOT 1025	Basic Medical Sciences I	3
MOT 1026	Basic Medical Sciences II	3
MOT 1027	Basic Medical Sciences III	3
MOT 1050	Introduction to CPT Coding	2
MOT 1060	Introduction to ICD Coding	2
MOT 1061	Intermediate Coding	3
MOT 2040	Advanced Insurance Billing & Coding	3
Total Credit Hours		**28**

Medical Receptionist

This certificate is designed to prepare individuals to work as receptionists in the health care industry. Students successfully completing this course of study will be able to register new patients, use proper telephone techniques, schedule appointments, file medical records and process mail. Students will gain exposure to both computerized and manual systems to organize a medical office. Some credits from this program may be applied to the Medical Assistant AAS degree option.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have permission of coordinator to enroll.

Upon completion of the Medical Receptionist program, students will also qualify for the Medical Coding Specialist certification.

Program Prerequisites

HPR 1011 CPR for Professionals or current active CPR (cardiopulmonary resuscitation) certification Heart Association) approved training plan. Online CPR training certification is not accepted.

Program Learning Outcomes

Upon completion of the Medical Receptionist certificate program, students should be able to:

- Illustrate the normal functions and common pathologies of body systems (e.g., cardiovascular, respiratory, neurological)
- Interpret the use and side effects of drugs commonly used to treat diseases affecting body systems
- Analyze information from medical records and code it for insurance purposes
- Manage patient accounts and records (e.g., coding, billing, bookkeeping)

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
or		
COM 1150	Public Speaking	(3)
or		
COM 1250	Interpersonal Communication: SS3	(3)
or		
COM 2250	Organizational Communication	(3)

Program Requirements

HPR 1008	Law & Ethics for Health Professionals	2
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
MAP 1010	Medical Office Administration	4
MAP 1020	Medical Office Financial Management	4
MAP 2080	Internship	4
MOT 1020	Medical Filing	2
MOT 1025	Basic Medical Sciences I	3
MOT 1026	Basic Medical Sciences II	3
MOT 1027	Basic Medical Sciences III	3
MOT 1036	Introduction to Clinical Skills	3
MOT 1050	Introduction to CPT Coding	2
MOT 1060	Introduction to ICD Coding	2
MOT 1061	Intermediate Coding	3
MOT 2040	Advanced Insurance Billing & Coding	3
Total Credit Hours		**42**

Additional information available on the Medical Office Technology Department website at www.pikespeak.edu/programs/medical-reception-and-coding.

Multimedia Graphic Design

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This program prepares the students for entry-level work in some of the following creative and exciting areas: graphic design, photo enhancement, digital illustration, interactive media digital video production, web design, animation, and production layout. Students receive a blend of knowledge in color, design, computer software, typography, and drawing. Students will also choose from a variety of course electives.

Maximizing student success in the Multimedia Graphic Design program is the department goal. The program faculty recommends that students develop the following desirable skill and knowledge foundations to enhance student success:

- Advanced college level study skills
- Working knowledge of algebraic principles and basic measurement
- College-level reading, writing, comprehension, and study skills
- Working knowledge and application of college-level English
- Demonstrated time management skills
- Keyboarding, mouse, and computer experience (will be taught in MGD 1002). It is strongly recommended that students see an advisor for program planning.

Students may complete basic skill deficiencies concurrently with the beginning courses in the program. Students must arrange with advisors to remedy deficiencies in program requirements. Please call 719-502-3143 for advising.

Program Learning Outcomes

Upon completion of the Multimedia Graphic Design degree program, students should be able to:

- Discuss and implement design and industry skills using appropriate techniques
- Convey a message through a design medium based on client requirements, the target audience and using typographic principles to create an information hierarchy
- Produce a design that shows a mastery of technical knowledge in Typographic design principles
- Identify current trends and technologies as well as being well versed in a multitude of creative styles
- Critically analyze and interpret client requirements
- Assemble a strong portfolio and produce a professional level body of design work

General Education Courses

ART 1110	Art Appreciation: AH1	3
or		
ART 1113	Art History 1900to Present: AH1	(3)
COM 1150	Public Speaking	3
or		
COM 2220	Group Communication: SS3	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)

MAT 1140	Career Math	3
or		
MAT 1160	Financial Mathematics	(3)
Elective	AAS General Education Elective course	3
		15

Additional Required Courses

MGD 1002	Introduction to Multimedia	3
MGD 1009	Design & Color	3
or		
ART 1001	Color Theory	(3)
MGD 1011	Adobe Photoshop I	3
or		
ART 1005	Digital Art Foundations I	(3)
MGD 1012	Adobe Illustrator I	3
MGD 1013	Adobe InDesign	3
MGD 1014	Typography I	3
MGD 1017	Introduction to Visual Communications	3
or		
MGD 1020	Production Design	(3)
MGD 1034	Drawing for Illustrators	3
MGD 1041	Web Design I	3
MGD 1043	Motion Graphic Design I	3
or		
MGD 1065	After Effects I	(3)
MGD 2013	Electronic Prepress	3
MGD 2021	Computer Graphics I	3
MGD 2041	Web Design II	3
or		
MGD 2042	Web Architecture: Open Source Design	(3)
MGD 2089	Capstone	3
Elective	Choose eight (8) hours from list below	8
		50
Total Credit Hours		**65**

Electives

ART 1111	Art History Ancient to Medieval: AH1	3
ART 1112	Art History Renaissance to 1900: AH1	3
ART 1401	Digital Photography I	3
COM 1150	Public Speaking	3
or		
COM 2220	Group Communication: SS3	(3)
JOU 1005	Introduction to Mass Media: SS3	3
MGD 1006	Creativity & Visual Thinking	3
MGD 1007	History of Design	2
MGD 1010	Lettering for Graphic Design	2
MGD 1015	Typography & Layout	3
MGD 1017	Introduction to Visual Communications	3
MGD 1032	Design & Color II	3
MGD 1037	Illustration I	3
or		
ART 1201	Drawing I	(3)
MGD 1038	Illustration II	3
or		
ART 1202	Drawing II	(3)
MGD 1043	Motion Graphic Design I: (Software)	3
MGD 1053	3-D Animation I	3
MGD 1056	Emergent Media Practices	3
MGD 1064	Digital Video Editing I	3
MGD 1065	After Effects I	3
MGD 1078	Seminar/Workshop	3
MGD 108	History of Illustration	2
MGD 1080	Internship	3
MGD 2001	Children's Book Illustration	3
or		
ART 1205	Drawing for the Graphic Novel	(3)
MGD 2002	Point of Purchase Packaging Design	3
MGD 2011	Adobe Photoshop II	3
MGD 2012	Adobe Illustrator II	3
MGD 2014	Typography II	3

MGD 2015	Painting for Illustrators	3
MGD 2022	Computer Graphics II	3
MGD 2035	Word & Image 1: Comics	3
MGD 2037	Illustration III	3
MGD 2038	Illustration IV	3
MGD 2041	Web Design II	3
MGD 2042	Web Architecture: Open Source Design	3
MGD 2059	Management & Production	3
MGD 2065	After Effects II	3
MGD 2068	Business for Creatives	3
PHO 1020	Fundamentals of Photography	3
PHO 2005	Professional Digital Photo I	3
RTV 1005	Basic Video Production	3
RTV 1006	Principles of Audio	3
RTV 2005	Advanced Video Production	3

Certificates

Design to Print

With the Design to Print Certificate students acquire a blend of knowledge regarding color, layout, and design associated with communication through print media. Students practice using design processes and creative problem solving in workups, finished art, and presentations. Additionally, students learn how to use the high-end capabilities of Adobe Photoshop, Adobe Illustrator, Adobe InDesign as illustration, design, and page layout tools. Students learn about typography and develop electronic drawing skills through practice and the use of state-of-the-art illustration software.

Program Learning Outcomes

Upon completion of the Design to Print certificate program, students should be able to:

- Create graphic communication using appropriate typography and layout
- Design and prepare digital files for printing
- Create marketing and branding collateral using advanced computer graphics
- Design a complex electronic graphics using state of the art graphics software

MGD 1009	Design & Color	3
or		
ART 1001	Color Theory	(3)
MGD 1011	Adobe Photoshop I	3
or		
ART 1005	Digital Art Foundations I	(3)
MGD 1012	Adobe Illustrator I	3
MGD 1013	Adobe InDesign	3
MGD 1014	Typography I	3
MGD 2011	Adobe Photoshop II	2
or		
MGD 2012	Adobe Illustrator II	(3)
or		
MGD 2022	Computer Graphics II	(3)
MGD 2013	Electronic Prepress	3
MGD 2021	Computer Graphics I	3
Total Credit Hours		**24**

Digital Image

With the Digital Image Certificate students acquire a blend of knowledge regarding color, layout, and design associated with communication through digital images. Students practice using design process and creative problem solving in workups, finished art, and presentations. Additionally, students learn how to use the high-end capabilities of Adobe Photoshop and Adobe Illustrator. Students explore visual problem solving using digital tools for fine

art. Students are introduced to photography, camera equipment and software used for image capture, management, and manipulation. There is also an emphasis on the creative use of camera controls, exposure, and an overview of film and digital processing.

Program Learning Outcomes

Upon completion of the Digital Image certificate program, students should be able to:

- Create digital artwork for web design, print media, and digital screen design using Adobe Photoshop and Illustrator
- Apply image composition techniques using Adobe Photoshop
- Create a professional portfolio of photographic images

MGD 1009	Design & Color	3
or		
ART 1001	Color Theory	(3)
MGD 1011	Adobe Photoshop I	3
or		
ART 1005	Digital Art Foundations I	(3)
MGD 1012	Adobe Illustrator I	3
MGD 2011	Adobe Photoshop II	3
PHO 1020	Fundamentals of Photography	3
or		
ART 1401	Digital Photography I	(3)
Total Credit Hours		**15**

Foundations of Multimedia Graphic Design

With the Multimedia Graphic Design Certificate students acquire a blend of knowledge regarding the basic components of multimedia, including text, graphics, animation, sound, and video through the creation of an array of projects and demonstrations. Students practice using design process and creative problem solving, as well as learning about color theories, fundamentals, and styles. Additionally, students can learn how to use the high-end capabilities of Adobe Photoshop, Adobe Illustrator, Adobe InDesign as illustration, design, web design, and page layout tools.

Program Learning Outcomes

Upon completion of the Foundations of Multimedia Graphic Design certificate program, students should be able to:

- Create digital artwork for web design, print media, video, and digital screen design using the Adobe Creative Cloud

MGD 1002	Introduction to Multimedia	3
MGD 1009	Design & Color	3
MGD 1011	Adobe Photoshop I	3
or		
ART 1005	Digital Art Foundations I	(3)
MGD 1012	Adobe Illustrator I	3
Elective	Choose three (3) credits from list below	3
Total Credit Hours		**15**

Electives

MGD 1013	Adobe InDesign	3
MGD 1014	Typography I	3
MGD 1017	Introduction to Visual Communications	3
MGD 1034	Drawing for Illustrators	3
MGD 1041	Web Design I	3

Illustration

With the Illustration Certificate students acquire a blend of knowledge regarding color, layout, and design associated with communication through design illustration. Students learn how to use the high-end capabilities of Adobe Photoshop and Adobe Illustrator. Students acquire the fundamental skills associated with drawing and rendering line structure, form, value, and composition. Additionally, students learn about methods and techniques used in the profession of illustration for advertising, brochures, books, and other printed communication forms, with a focus on the development of color art for reproduction and proficiency in technique.

Program Learning Outcomes

Upon completion of the Illustration certificate program, students should be able to:

- Create illustrations using a variety of techniques (e.g., black-and-white, color)
- Present and critique illustrations in a professional manner
- Create comic layouts and panels
- Create professional level storyboards and wireframe

MGD 1009	Design & Color	3
or		
ART 1001	Color Theory	(3)
MGD 1011	Adobe Photoshop I	3
or		
ART 1005	Digital Art Foundations I	(3)
MGD 1012	Adobe Illustrator I	3
MGD 1034	Drawing for Illustrators	3
MGD 1037	Illustration I	3
MGD 1038	Illustration II	3
MGD 2035	Word & Image 1: Comics	3
MGD 2037	Illustration III	3
Total Credit Hours		**24**

Video Production and Editing

With the Video Production and Editing Certificate students acquire a blend of knowledge regarding color, layout, and design associated with communication through video. Students learn how to use Adobe Photoshop and how to create animation and dynamic interactive media for web and multimedia applications to a professional standard as well as the use of digital non-linear video editing and techniques for creating digital motion graphics. Additionally, students will learn basic audio production and editing techniques used in television and videotape production.

Program Learning Outcomes

Upon completion of the Video Production and Editing certificate program, students should be able to:

- Create digital motion graphics such as 2D and 3D animations, animated logos, and video graphics
- Develop, edit, and produce digital video assets for multimedia
- Produce audio tracks for online and multimedia productions
- Create effect professional level content with comprehensive knowledge of the principles of animation

MGD 1009	Design & Color	3
or		
ART 1001	Color Theory	(3)
MGD 1011	Adobe Photoshop I	3
or		
ART 1005	Digital Art Foundations I	(3)
MGD 1043	Motion Graphic Design I: Software	3
MGD 1064	Digital Video Editing I	3
MGD 1065	After Effects I	3
RTV 1005	Basic Video Production	3
RTV 1006	Principles of Audio	3
Total Credit Hours		**21**

Web Design

With the Web Design Certificate students acquire a blend of knowledge regarding color, layout, and design associated with communication through web sites. Students learn how to use Adobe Photoshop and how to create animation and dynamic interactive media for web and multimedia applications to a professional standard. Additionally, students learn about web site planning, design, and creation through industry-standard development tools as well as open sources tools used in the design industry for designing and implementing web architecture.

Program Learning Outcomes

Upon completion of the Web Design certificate program, students should be able to:

- Create digital graphics for web design, print media, and digital screen design using Adobe Creative Cloud
- Design complex web sites using HTML and CSS along with industry-standard development tools
- Create animation and dynamic interactive media for web and multimedia applications
- Design and implement effective User Experience (UX)

MGD 1009	Design & Color	3
or		
ART 1001	Color Theory	(3)
MGD 1011	Adobe Photoshop I	3
or		
ART 1005	Digital Art Foundations I	(3)
MGD 1012	Adobe Illustrator I	3
MGD 1041	Web Design I	3
MGD 1043	Motion Graphic Design I	3
MGD 2041	Web Design II	3
MGD 2042	Web Architecture: Open Source Design	3
Total Credit Hours		**21**

Additional information available on the Multimedia Graphic Design Department website at www.pikespeak.edu/programss/multimedia-graphic-design.

Nursing

Pikes Peak State College offers the following programs:

- Registered Nurse Associate of Applied Science Degree
- Registered Nurse Associate of Applied Science Degree with PN Exit Option
- Registered Nurse Associate of Applied Science Degree for Advanced Placement (LPN-RN)
- Nursing Assistant Certificate

Admission to the college does not assure admission to the registered nursing programs. Admission to the RN program with the LPN exit option and the Advanced Placement option require separate admission criteria. All students interested in the registered nursing programs who do not have previous college courses must complete the PPSC placement exams prior to being advised. Potential students should attend Information Nights held each month to obtain information prior to advising. Interested students can inquire on times by calling 719-502-3400 or 719-502-3450. Students should complete the application to the PPSC nursing program by downloading a copy from the PPSC nursing website at www.pikespeak.edu/degrees-certificates/nursing/.

This should be performed when all prerequisites are completed with a minimum GPA of 2.5 with a minimum grade of C in each course. Students interested in the Nursing Assistant Certificate

should apply directly to the college and then sign up for appropriate classes. All students will be required to meet regulations regarding CPR, immunizations, and disability issues. It is the policy of the PPSC Program of Nursing to provide reasonable accommodation to qualified students with disabilities. Whether or not a requested accommodation is reasonable will be determined on an individual basis. Determining what is a reasonable accommodation is an interactive process which the students should initiate with Accessibility Services.

Program Learning Outcomes

Upon completion of the Nursing degree program, students should be able to:

- Provide safe quality evidenced-based patient centered (holistic) and compassionate care in a variety of health care settings
- Demonstrate critical thinking when analyzing patient data and considering quality improvement in healthcare delivery systems
- Participate in collaborative relationships with members of the interdisciplinary team for the purpose of providing and improving patient care outcomes
- Provide teaching to diverse patient populations across the lifespan incorporating the health-illness continuum
- Provide and direct nursing care that coordinates, organizes, prioritizes, and modifies care using the nursing process in a variety of health care settings
- Function as a competent nurse assimilating all professional, ethical, and legal principles related to nursing practice
- Utilize a variety of types of information technology and communication skills to communicate, manage knowledge, mitigate error, and support decision making
- Provide leadership in a variety of healthcare settings for diverse patient populations

Nursing: Registered Nurse

Associate of Applied Science Degree with Licensed Practical Nurse Exit Option

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Registered Nursing program is an Associate of Applied Science degree. Nursing courses begin in either the fall or spring semester. The PPSC Nursing program is designed to be completed in 4 semesters. Admission criteria for the state community college nursing programs are standardized. They are subject to change. PPSC nursing program maintains a competitive admission process. Students must complete the Nursing program application after completing all prerequisites. An application can be obtained by downloading a copy from the PPSC nursing website at www.pikespeak.edu/ degrees-certificates /nursing/.

Prerequisite Courses

BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2104	Microbiology w/Lab: SC1	4
ENG 1021	English Composition I: CO1	3
PSY 2440	Human Growth & Development: SS3	3
Total Prerequisite Credits		**14**

- All Biology (BIO) prerequisites must be completed within seven (7) years of entry into CCCS nursing programs.

- All courses must have a minimum of C grade with an overall GPA of 2.5 in the prerequisites.
- Students will be asked to complete a Nurse Entrance Test (Tests of Essential Academic Skills, TEAS) at time of application. Please see the nursing application for more information.
- Upon provisional acceptance, the program will notify the student of dates needed to obtain additional information such as:

  - Criminal background check/drug testing
  - Immunizations
  - CPR for Health Care Provider (BLS), American Heart Association (AHA) only
  - CNA requirement: either an Active Colorado CNA certificate in good standing OR successful completion of NUA 1001, NUA 1070 and NUA 1071 courses within the CCCS system.

Nursing Curriculum

Year I First Semester

BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
MAT 1120	Math for Clinical Calculations	3
NUR 1009	Fundamentals of Nursing	6
NUR 1012	Basics Concepts of Pharmacology	2

Year I Second Semester

BIO 2116	Human Pathophysiology	4
NUR 1006	Medical & Surgical Nursing Concepts	7
NUR 1050	Maternal-Child Nursing	6

Year II First Semester

NUR 2006	Advanced Concepts of Medical-Surgical Nursing I	6.5
NUR 2011	Psychiatric-Mental Health Nursing	4
NUR 2012	Pharmacology II	2

Year II Second Semester

NUR 2016	Advanced Concepts of Medical-Surgical Nursing II	5
NUR 2030	Transition to Professional Nursing Practice	4
Arts and Humanities or Social and Behavioral Sciences GT Pathways elective		3
Total Nursing Credits		**56.5**
Total Credits		**70.5**

Students are eligible to apply to take the NCLEX-PN at the successful completion of the first year of nursing courses and NUR 1069 Transition into Practical Nursing (minimum of C grade). Students are eligible to apply to take the NCLEX-RN at the successful completion of the second year of nursing courses. Students may also complete any of the other general education/science courses prior to entry in nursing courses.

Nursing: LPN Advanced Placement Option

Associate of Applied Science Degree

Recommended basic skills courses are
- Basic Computer Literacy
- College Readiness in English
- College Readiness for Quantitative Literacy

Pikes Peak State College offers an advanced placement associate degree program for licensed practical nurses. Prior LPN course work from an accredited practical/vocational nursing program within the USA and a Colorado LPN license in good standing may be accepted.

Admission criteria for the state community college nursing programs are standardized and subject to change. PPSC nursing program maintains a competitive admission process. Students should complete the LPN to RN nursing program application to the PPSC nursing program after completing all prerequisites by downloading a copy from the PPSC nursing website at www.pikespeak.edu/degrees-certificates/nursing/.   Students must pass background check, drug screening, and complete immunizations prior to admission. Students must also complete entrance exam with minimum score.

Prerequisite Courses
Must be completed with a minimum GPA of 2.5

BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
BIO 2104	Microbiology w/Lab: SC1	4
ENG 1021	English Composition I: CO1	3
PSY 2440	Human Growth & Development: SS3	3
Total Prerequisite Credits		**18**

Must be completed prior to entry with a minimum grade of C

BIO 2116	Human Pathophysiology	4
MAT 1120	Math for Clinical Calculations	3
NUR 1089	Transition from LPN to ADN (Taken only after acceptance)	4

Other requirements are the same as the Registered Nurse Associate of Applied Science Degree with the Practical Nurse Exit Option. Details on the nursing programs can be found on the PPSC website under nursing.

Nursing Curriculum

Year II First Semester

NUR 2006	Advanced Concepts of Medical-Surgical Nursing I	6.5
NUR 2011	Psychiatric-Mental Health Nursing	4
NUR 2012	Pharmacology II	2

Year II Second Semester

NUR 2016	Advanced Concepts of Medical-Surgical Nursing II	5
NUR 2030	Transition to Professional Nursing Practice	4
Arts and Humanities or Social and Behavioral Sciences gtPathways elective		3
Total Nursing Credits		**35.5**
Total Credits including Prerequisites		**53.5**
With NUR transfer credits from prior LPN coursework		**17**
Total Credits		**70.5**

Additional information available on the Nursing Department website at www.pikespeak.edu/programs/nursing.

Certificate

Nursing Assistant

Recommended basic skills courses are
- College Readiness in English

Prerequisite Courses
- HPR 1011 CPR for Professionals or Proof of Completion of CPR for Healthcare Professionals (BLS), American Heart Association (AHA) only

This certificate is designed to prepare individuals for entry level positions in bedside care. The program is competency-based introducing students to the principles, skills and abilities that comprise the Nursing Assistant Scope of Practice. Successful graduates of this program will have the knowledge base to work in a variety of settings to include long-term care, home health,

hospice, rehabilitation, and acute care. Students who complete NUA 1001, NUA 1070 and NUA 1071 are eligible for a Program Completion Certificate from Pikes Peak State College.

A PPSC Program Certificate does not guarantee state licensure or the ability to legally practice as a Certified Nursing Assistant. The PPSC Program Certificate grants the individual eligibility to apply to take the Colorado Nurse Aide Certificate Examination. It is successful completion of the state certification exam within two years of program completion that will result in legal licensure and the eligibility for practice within the State of Colorado.

In addition to the classroom content delivered in NUA 1001, students can anticipate up to 60 hours of hands-on clinical experience in NUA 1070 and NUA 1071. Clinical instruction takes place outside of the traditional classroom in a live, community-based healthcare setting. Students must be at least 16 years of age to participate in NUA 1070 and NUA 1071 (Students under age 18 will be scheduled for a non-hospital clinical assignment for NUA 1071.

To register for the NUA program courses students must obtain an application from the NUA department. Students will be eligible to register once they have turned in their completed application packet to include the following information:

- Proof of immunization or positive blood titers for: Tetanus, Diphtheria & Pertussis (TDAP), Measles, Mumps, Rubella (MMR), Hepatitis B and Varicella. Tuberculin skin test, quantiferon or negative Chest X-ray and current year influenza vaccination and completion of the COVID vaccination series
- Signed documentation of a physical exam administered by their private care physician at their own cost
- Current CPR for Healthcare Providers (BLS), American Heart Association (AHA) only
- PPSC approved criminal background check and drug screen: The background checks and drug screens are an additional cost, paid by the student. Failure of either the background check or drug screen will disqualify the individual for eligibility to the program for two years. Contact a NUA faculty advisor for information on specific disqualifiers.

For additional information/clarification please attend a NUA information session of review the information on power point on the NUA website.

Program Learning Outcomes

Upon completion of the Nursing Assistant certificate program, students should be able to:

- Implement awareness of a client's emotional, social, and mental health needs through skillful, directed interactions
- Support the client in attaining and maintaining independence
- Interpret the observational and documentation skills needed in the assessment of client's health, physical condition, and well-being
- Demonstrate the functions of the nursing assistant within the health care team
- Communicate competently with clients and other members of the healthcare team
- Exhibit behavior in support and promotion of the Clients' rights
- Demonstrate an awareness of the Colorado Nurse Aide Practice Act

Required Courses

NUA 1001	Nurse Aide Health Care Skills	4
NUA 1070	Nurse Assistant Clinical Experience	1
NUA 1071	Advanced Nurse Aide Clinical	1
Total Credit Hours		**6**

Other courses for nursing assistants

NUA 1005	Home Health Aide Theory	2
NUA 1074	Acute Care Nurse Aid Skills	1

Additional information available on the Nursing Assistant Department website at www.pikespeak.edu/nursing/nursing-assistant.

Outdoor Leadership & Recreation Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Are you interested in exploring your passion, developing your outdoor skills, gaining leadership experience, or finding employment doing what you love? The world of careers is open to students pursuing an Outdoor Leadership and Recreation Technology degree. From guiding mountaineering trips in the Colorado Rockies to teaching environmental education courses to presenting wildlife programs at local nature centers, this program provides background education in a wide scope of industry career paths.

This two-year AAS degree includes a variety of certification classes, hands-on learning opportunities and a diverse elective list allowing students to enhance outdoor skills in their specific area of interest. Training emphases include outdoor leadership, field studies, group dynamics, risk management, web design, wilderness skills, and low-impact techniques for environmental stewardship. To enhance the learning process, students will utilize their education by applying skills developed within the program to an internship of their choosing.

Students may complete academic deficiencies concurrently with the beginning courses in the program. Students must arrange with advisors to remedy deficiencies in program requirements. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Outdoor Leadership and Recreation Technology degree program, students should be able to:

- Exhibit mastery of outdoor leadership and recreational technical skills
- Exhibit competent and ethical leadership in an outdoor environment
- Communicate effectively and professionally with clients and other community members
- Assess potential environmental impacts of recreation activity
- Discuss, explain, and implement relevant environmental conservation practices

General Education Courses

COM 2220	Group Communication: SS3	3
COM 2250	Organizational Communication	3
ENG 1031	Technical Writing I: CO1	3
ENV 1111	Environmental Science w/Lab: SC1	4
MAT 1140	Career Math	3
or		
MAT 1160	Financial Mathematics	(3)
REC 1000	Introduction to Recreation	2
		18

Additional Required Courses

COM 1250	Interpersonal Communication: SS3	3
or		
COM 2300	Intercultural Communication: SS3	(3)
or		
MAR 1060	Customer Service	(3)
or		
PSY 1005	Psychology of Workplace Relationships	(3)
HWE 1005	American Heart Association Heartsaver First Aid CPR and AED	0.5
MGD 1002	Introduction to Multimedia	3
OUT 1010	Wilderness Survival Skills	3
OUT 1020	Backcountry Navigation	2
OUT 1080	Wilderness Emergency Medical Services Program Orientation	0.5
or		
OUT 1125	Mountain Orientation	(2)
or		
OUT 1130	Desert Orientation	(2)
or		
OUT 1135	Canyon Orientation	(2)
or		
OUT 1330	River Orientation	(2)
or		
OUT 1385	Scuba Diving	(1)
or		
OUT 1510	Rock Climbing I	(2)
or		
OUT 1685	Snow Orientation	(2)
OUT 1087	Cooperative Education Internship	3
OUT 1120	Backpacking	2
or		
OUT 1530	Technical Canyoneering	(2)
or		
OUT 1540	Challenge Course Facilitation	(2)
or		
OUT 1550	Mountaineering	(3)
or		
OUT 1570	Basic Search & Rescue	(3)
or		
OUT 2002	Open Water Diver	(1)
or		
OUT 2330	River Orientation II	(2)
or		
OUT 2510	Rock Climbing II	(2)
OUT 1200	Wilderness Ethics	2
OUT 1205	Leave No Trace Trainer Cert.	2
OUT 1210	Risk Management for Outdoor Professionals	1
OUT 2044	Wilderness First Responder	4
OUT 2200	Naturalist Training	3
REC 2011	Outdoor Leadership	2
or		
PRA 2018	Outdoor Leadership	(3)
REC 2012	Outdoor Recreation Programming	3
Elective	Choose ten (10) hours from the list below	10
		44.5
Total Credit Hours		60-64.5

Electives

All courses with NRE, OUT, PRA, or REC prefixes

ACC 1001	Fundamentals of Accounting	3
ACC 1015	Payroll Accounting	3
ACC 1021	Accounting Principles I	4
ACC 1022	Accounting Principles II	4
ACC 1025	Computerized Accounting	3
ACC 1031	Income Tax	3
AGY 2140	Introductory Soil Science: SC1	4
ANT 1001	Cultural Anthropology: SS3	3
ANT 1005	Biological Anthropology with Laboratory: SC1	4
ANT 2115	Native Peoples of North America: SS3	3
ANT 2130	Sex, Gender & Culture: SS3	3
ANT 2545	Anthropology of Energy	3
ARA 2011	Arabic Language III	3
ARA 2012	Arabic Language IV	3
ART 1204	Landscape Drawing I	3
ART 1305	Landscape Painting	3
ART 2407	Landscape Photography	3
ASL 1123	American Sign Language III	5
ASL 1125	Fingerspelling	3
ASL 1135	Conversational ASL	2
ASL 2221	American Sign Language IV: AH4	3
AST 1110	Colorado Night Sky III	1
AST 1140	Astronomy of Ancient Cultures: SC2	3
BIO 1003	Principles of Animal Biology: SC2	3
BIO 1004	Biology: A Human Approach: SC1	4
BIO 1048	Basic Ecology	4
BUS 1015	Introduction to Business	3
BUS 2003	Introduction to International Business	3
BUS 2016	Legal Environment of Business	3
CHI 2011	Chinese Language III	3
CIS 1018	Introduction to PC Applications	3
CIS 1055	Complete Spreadsheets: (Software Package)	3
CIS 1065	Complete Presentation Graphics	3
CIS 2067	Management of Information Systems	3
COM 1150	Public Speaking	3
COM 2060	Listening in a Workplace Communication Setting	1
COM 2063	Conflict Resolution	1
CSL 2050	Motivational Interviewing I	1.5
CSL 2054	Trauma Informed Care	1
CSL 2065	Co-Occurring Disorders	1
ECE 1031	Guidance Strategies for Young Children	3
ECE 1911	School Age Theory & Practice	3
ECE 1925	School Age Lab Techniques	3
ECE 2051	Nutrition, Health & Safety	3
ECE 2101	Working with Families & Communities	3
ECE 2381	ECE Child Growth & Development	3
ECE 2401	Administration of Early Childhood Care & Education Programs	3
ECE 2621	Curriculum Development: Methods & Techniques	3
ECO 2045	Environmental Economics: SS1	3
EDU 2221	Effective Teaching	3
EDU 2341	Multicultural Education	3
EMS 1015	Emergency Medical Responder	3
ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
ENG 1032	Technical Writing II	3
ENG 2001	English Composition III: CO3	3
ENP 1005	Introduction to Entrepreneurship	3
ENV 1010	Natural Disasters: SC2	3
ETH 2024	Introduction to Chicano Studies	3
FIN 1060	Consumer Economics	3
FIN 2010	Principles of Finance	3
FRE 2011	French Language III: AH4	3
FRE 2012	French Language IV: AH4	3

FST 2058	Wildland Fire Incident Management & Organization	3
FST 2059	Wildland Firefighting Strategy & Tactics	3
FSW 1000	S-190 Introduction to Wildland Fire Behavior	1
FSW 1001	S-130 Firefighting Training	2
FSW 1053	S-290 Intermediate Wildland Fire Behavior	2
GEO 1005	World Regional Geography: SS2	3
GEO 1012	Physical Geography: Weather, Climate and Ecosystems with Lab: SC1	4
GER 2011	German Language III: AH4	3
GER 2012	German Language IV: AH4	3
GEY 1108	Geology of U.S. National Parks: SC2	3
GEY 1135	Environmental Geology with Lab: SC1	4
GEY 2205	The Geology of Colorado	3
HIS 1220	U.S. History Since the Civil War: HI1	3
HIS 2015	20th Century World History: HI1	3
HIS 2105	Women in U.S. History: HI1	3
HIS 2110	African American History: HI1	3
HIS 2115	American Indian History: HI1	3
HIS 2125	American Environmental History: HI1	3
HIS 2130	History of the American West: HI1	3
HIS 2135	Colorado History: HI1	3
HIS 2145	U.S. History Since 1945: HI1	3
HUM 1023	Modern World: AH2	3
HUM 2011	Cultural Diversity in the Humanities	3
HWE 1050	Human Nutrition	3
HWE 2060	Exercise, Nutrition & Body Composition	3
IND 2703	Sustainable Design	3
ITA 2011	Italian Language III: AH4	3
ITA 2012	Italian Language IV: AH4	3
JOU 1021	Photojournalism	3
JPN 2011	Japanese Language III: AH4	3
JPN 2012	Japanese Language IV: AH4	3
MAN 1017	Time Management	1
MAN 1025	Team Building	1
MAN 1028	Human Relations in Organizations	3
MAN 2016	Small Business Management	3
MAN 2046	Critical Issues in Marketing & Management	3
MAR 2049	Strategic Marketing	3
MAT 1260	Introduction to Statistics: MA1	3
MET 1050	General Meteorology with Lab: SC1	4
MGD 1017	Introduction to Visual Communications	3
MGD 1056	Emergent Media Practices	3
MGD 2042	Web Architecture: Open Source Design	3
PAR 1115	Introduction to Law	3
PAR 1116	Torts	3
PAR 1118	Contracts	3
PAR 2206	Business Organization Law	3
PHI 1013	Logic: AH3	3
PHI 2005	Business Ethics: AH3	3
PHI 2018	Environmental Ethics: AH3	3
PHO 1020	Fundamentals of Photography	3
PHO 2187	Business of Photography	3
PHY 1105	Conceptual Physics with Lab: SC1	4
PSY 2332	Psychology of Adjustment	3
PSY 2440	Human Growth & Development: SS3	3
PSY 2661	Brain and Behavior	3
RUS 2011	Russian Language III: AH4	3
RUS 2012	Russian Language IV: AH4	3
SCI 1056	Integrated Science II-Earth & Life Sciences with Lab: SC1	4
SOC 2007	Environmental Sociology: SS3	3
SOC 2018	Sociology of Diversity: SS3	3
SOC 2031	The Sociology of Deviant Behavior: SS3	3
SPA 1009	Spanish for Travelers	3
SPA 1015	Spanish for the Professional I	3
SPA 2001	Conversational Spanish III	3
SPA 2002	Conversational Spanish IV	3
SPA 2011	Spanish Language III: AH4	3

SPA 2012	Spanish Language IV: AH4	3
SPA 2015	Spanish for the Professional II	3
SWK 1050	Application of Group Counseling	3
SWK 1060	Introduction to Alcohol & Drugs	3
SWK 2010	Human Behavior in the Social Environment I	3
TRI 1001	Introduction to Translation & Interpretation	3
TRI 1003	Ethics for Translation & Interpretation	2
TRI 2001	Consecutive Interpretation I	3
TRI 2002	Simultaneous Interpretation I	3
TRI 2003	Sight Translation	3
WQM 1000	Introduction to Water Quality	3
WQM 1015	Water Sources & Supplies	3
WQM 2012	Drinking Water Regulations	4
ZOO 1020	Biodiversity & Conservation	3
ZOO 1030	Animal Behavior	3
ZOO 1410	Invertebrate Zoology	4
ZOO 1510	Fish Husbandry & Aquaria Management	4
ZOO 1610	Herpetology	4
ZOO 1710	Bird Husbandry	4
ZOO 1811	Ungulates-The Hoofed Mammals	2
ZOO 1815	Wild Cats-Conservation & Management	2
ZOO 1816	Wild Canids	2
ZOO 1817	Bats: An Introduction	2
ZOO 2410	Aquatic & Terrestrial Invertebrate Husbandry	4
ZOO 2610	Reptile & Amphibian Husbandry	4

Certificates

Winter Field Studies

This Winter Field Studies certificate is designed to prepare students to work in a variety of outdoor settings. Students will acquire skills in emergency medical care techniques useful in backcountry settings that enable them to respond correctly to medical and trauma situations. In particular, students will learn winter wilderness survival techniques in the nivean environment at or near timberline, backcountry cooking, and safe winter travel skills. Students will learn about snow and avalanche phenomena, hazard evaluation, rescue, avalanche forecasting and mitigation.

Program Learning Outcomes

Upon completion of the Winter Field Studies certificate program, students should be able to:

- Build snow shelter and practice winter survival techniques
- Prepare for winter backcountry trips (e.g., ice climbing, snowshoeing, skiing)
- Respond to medical and trauma situations
- Practice avalanche rescue techniques
- Gather and interpret terrain information to assess avalanche hazard

HWE 1005	American Heart Association Heartsaver First Aid CPR & AED	0.5
OUT 1020	Backcountry Navigation	1
OUT 1050	Backcountry Cooking	1
OUT 1205	Leave No Trace Trainer Cert	2
OUT 1210	Risk Management for Outdoor Professionals	1
OUT 1600	Winter Wilderness Survival Skills	2
OUT 1670	Avalanche Safety I	1
OUT 1685	Snow Orientation	2
OUT 2044	Wilderness First Responder	4
OUT 2068	Avalanche Rescue	0.5
OUT 2069	Avalanche Safety II	1

Choose one of the following courses

OUT 1520	Ice Climbing I	1
OUT 1651	Snowshoeing	1
OUT 1680	Backcountry Winter Travel	1
Total Credit Hours		**17**

Additional information available on the Outdoor Leadership & Recreation Technology Department website at www.pikespeak.edu/programs/outdoor-leadership.

Paralegal/Legal Assistant

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy for MAT 1240

For more than three decades, the Paralegal program has been educating and training students to meet the needs of the local legal market, while providing students with opportunities beyond the law office environment. The program is an institutional member of the American Association for Paralegal Education, the National Association of Legal Assistants / Paralegals, and the National Federation of Paralegal Associations.

The objectives of the program are to (1) train students for employment as paralegals in a variety of legal settings; (2) provide opportunities for students who wish to upgrade existing job skills; and (3) provide coursework and transfer information to students who are interested in continuing their education.

The Paralegal Program at Pikes Peak State College is accredited by the American Bar Association. This accreditation necessitates a student to receive a "C" or better in any required course, which a student seeks to count towards the A.A.S. Degree or Legal Technician Certificate. This requirement includes all PAR program designated courses (Legal Specialty and Legal Electives), transfer credits, as well as General Education courses (Electives and Required Core) taken at Pikes Peak State College. A "C" is defined as an overall course grade requiring a 70% or better. This includes grades designated as "Satisfactory" by Pikes Peak State College and the Colorado Community College System.

Graduates will be qualified to perform basic legal research, draft various legal documents, conduct client and witness interviews, participate in basic fact-finding and investigation, and assist in trial preparation. They will also be knowledgeable about the rules of professional and ethical conduct.

Graduates are not authorized to practice law. The Paralegal program provides training perform substantive legal work under the supervision of a licensed attorney.

Program Learning Outcomes

Upon completion of the Paralegal/Legal Assistant degree program, students should be able to:

- Recall key concepts and issues set forth by the American Bar Association in core legal study areas
- Prepare legal documents that comply with industry standards, Court rules and procedures
- Properly handle, analyze, and disseminate legal documents in relation to the Work Product Doctrine, the Attorney Client Privilege, and the Colorado Rules Professional Conduct
- Recall key concepts and terminology relating to the American legal system, Courts, and legal precedence
- Use critical thinking skills and legal research skills to solve legal problems and make well-reasoned legal and ethical decisions

General Education Courses

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
or		
COM 1150	Public Speaking	(3)
MAT 1240	Mathematics for the Liberal Arts: MA1	4
PSC 1011	American Government: SS1	3
or		
PSC 1025	American State & Local Government: SS1	(3)
Elective	Choose six (6) hours level 1010 or higher (CRJ, LIT, ENG, PHI, POS, PSY, SOC)	6
		19

Additional Required Courses

PAR 1114	Computers & the Law	3
PAR 1115	Introduction to Law	3
PAR 1116	Torts	3
PAR 1117	Family Law	3
PAR 1118	Contracts	3
PAR 1125	Property Law	3
PAR 1127	Legal Ethics	3
PAR 2080	Internship	3
or		
PAR 2087	Cooperative Education	(3)
PAR 2201	Civil Litigation	3
PAR 2202	Evidence	3
PAR 2205	Criminal Law	3
PAR 2206	Business Organization Law	3
PAR 2208	Probate & Estates	3
PAR 2209	Constitutional Law	3
PAR 2213	Legal Research & Writing I	3
		45

Total Credit Hours   **64**

Certificate

Legal Technician

This certificate is designed for college graduates interested in gaining critical skill necessary to work in the legal support industry. This certificate program offering is only available to those students who possess (at the time of entry into the program) a bachelor's degree or HIGHER from a regionally accredited college or university. Students not possessing an approved degree must enroll in the Paralegal Associate of Applied Science program.

The Paralegal Program at Pikes Peak State College is accredited by the American Bar Association. This accreditation necessitates a student to receive a "C" or better in any required course, which a student seeks to count towards the A.A.S. Degree or Legal Technician Certificate. This requirement includes all PAR program designated courses (Legal Specialty and Legal Electives), transfer credits, as well as General Education courses (Electives and Required Core) taken at Pikes Peak State College. A "C" is defined as an overall course grade requiring a 70% or better. This includes grades designated as "Satisfactory" by Pikes Peak State College and the Colorado Community College System.

Program Learning Outcomes

Upon completion of the Legal Technician certificate program, students should be able to:

- Recall key concepts, terminology and issues set forth by the American Bar Association in core legal study areas
- Prepare legal documents that comply with industry standards, Court rules and procedures

- Create, analyze, and disseminate legal documents in relation to the Work Product Doctrine, the Attorney Client Privilege, and the Colorado Rules Professional Conduct
- Resolve legal problems using appropriate research strategies and ethical reasoning

PAR 1114	Computers & the Law	3
PAR 1115	Introduction to Law	3
PAR 1117	Family Law	3
PAR 1127	Legal Ethics	3
PAR 2201	Civil Litigation	3
PAR 2202	Evidence	3
PAR 2205	Criminal Law	3
PAR 2213	Legal Research & Writing I	3
Total Credit Hours		**24**

Additional information available on the Paralegal Department website at www.pikespeak.edu/programs/paralegal.

Pharmacy Technician

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Pharmacy Technician Program holds dual accreditation by the American Society of Health-System Pharmacists and the Accreditation Council for Pharmacy Education (ASHP/ACPE).

Pharmacy Technicians assist and support licensed pharmacists in providing health care and medications to patients. The pharmacy technician has broad knowledge and training in pharmacy, however, does not require the advanced college education required of a licensed pharmacist. Pharmacy technicians perform the practical duties, allowing the pharmacist to focus on patient education, pharmaceutical care, and medication management.

Admission to the college does not assure admission to the pharmacy technician program. All students interested in the pharmacy technician program who do not have previous college courses must complete the PPSC placement exams prior to being advised. Admission to the pharmacy technician program is accomplished through an application and selection process. Students can pick up a Pharmacy Technician Program Admission Application at the Division of Medical Sciences office at the Center for Healthcare Education and Simulation Campus. NO APPLICATION WILL BE REVIEWED THAT IS NOT FULLY COMPLETED. Once completed, please submit to the Pharmacy Technician Program Coordinator, and make an appointment to review necessary information at that time.

Pharmacies and varying facilities where pharmacy technicians are employed require criminal background checks and drug screens for both employment and all students completing clinical rotations. For information on specific disqualifiers, students should contact a PHT faculty advisor. Students who do not obtain a PPSC approved criminal background check and drug screen as according to program policy will not be allowed to complete the program or enroll in internship classes. Failure to pass the above tests will result in the inability to complete the desired certificate or degree.

Students should complete specific program prerequisites and meet with the PHT Program Director prior to submitting the pharmacy technician application. Courses to be completed prior to application to the program are CSC 1005 or CIS 1018, College Readiness in English and College Readiness for Quantitative Literacy.

Upon provisional acceptance, the program director will notify the student of dates needed to obtain additional information.

- Criminal background check
- Drug Screen
- Health statement/immunizations

Program Learning Outcomes

Upon completion of the Pharmacy Technician degree program, students should be able to:

- Collect, organize, and evaluate information for direct patient care
- Prepare prescriptions accurately in both the community and institutional pharmacy settings
- Perform mathematical calculations required to verify the measurements, preparation, and/or packaging of medication
- Illustrate skills and knowledge that align with the critical knowledge domains of the National Pharmacy Technician Certification Exam (PTCE)

General Education Courses

CIS 1055	Complete Spreadsheets: (Software package)	3
COM 2250	Organizational Communication	3
ENG 1021	English Composition I: CO1	3
MAT 1120	Math for Clinical Calculations	3
PSY 1005	Psychology of Workplace Relationships	3
		15

Additional Required Courses

CHE 1011	Introduction to Chemistry I w/Lab: SC1	5
or		
BIO 1111	General College Biology I w/Lab: SC1	(5)
HPR 1011	CPR for Professionals	0.5
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
HWE 1050	Human Nutrition	3
PHT 1011	Introduction to Pharmacy	3
PHT 1012	Pharmacy Law	2
PHT 1014	Computer Skills for Pharmacy Technicians	1
PHT 1015	Pharmacology I	3
PHT 1016	Pharmacology II	3
PHT 1035	Pharmaceutical Calculations & Compounding Techniques	4
PHT 1040	Institutional Pharmacy	3
PHT 1041	Community Pharmacy	3
PHT 1070	Pharmacy Clinical: Institutional	4
PHT 1071	Pharmacy Clinical: Community	4
PHT 2050	Sterile Compounding & Aseptic Technique	2
PHT 2055	Advanced Pharmacy Practice	2
		46.5
Total Credit Hours		**61.5**

Certificates

Advanced Pharmacy Practice

Students must successfully complete the initial PPSC Pharmacy Technician certificate program before being eligible to complete the Advanced Pharmacy Practice certificate. With this advanced certificate students learn how to use spreadsheets and become familiar with necessary medical terminology. Additionally, they learn the methods and regulation of sterile products, the mastery of aseptic technique, and the production of sterile preparations. Students also learn about career opportunities for pharmacy professionals.

Students that register for the advanced pharmacy practice courses without first meeting this requirement and having approval from the program director will be administratively withdrawn from the course.

Program Learning Outcomes

Upon completion of the Advanced Pharmacy Practice certificate program, students should be able to:

- Prepare a variety of basic and complex sterile products
- Demonstrate proper technique in aseptic garbing, hand washing, and gloving according to pharmaceutical guidelines USP <797>
- Explain the roles and responsibilities of pharmacy technicians associated with different practices (e.g., hospice care, home care)
- Interpret medical records using medical terminology

CIS 1055	Complete Spreadsheets: (Software package)	3
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
PHT 2050	Sterile Compounding & Aseptic Technique	2
PHT 2055	Advanced Pharmacy Practice & Nontraditional Roles	2
Total Credit Hours		**11**

Pharmacy Technician

This certificate program prepares students to assist in the preparation of prescribed medications, including retrieval, counting, pouring, weighing, measuring, and mixing medications. Students will explore the skills and techniques required to assist pharmacists in community and hospital settings.

Program Learning Outcomes

Upon completion of the Pharmacy Technician certificate program, students should be able to:

- Prepare medications for distribution, including compounding, with considerations regarding controlled substances and patient communication, in community and institutional pharmacy settings
- Evaluate drugs used to treat a variety of disorders (e.g., routes of administration, dosing, side effects)
- Demonstrate knowledge of the use and side effects of prescription and nonprescription drugs used to treat common disease states
- Perform pharmaceutical calculations applicable to job responsibilities in both community and institutional pharmacy settings
- Perform patient monitoring procedures and point-of-care testing (e.g., blood glucose monitoring, finger stick, blood pressure)
- Prepare sterile products using aseptic techniques
- Manage a variety of pharmacy functions using computer management systems (e.g., drug reference resources, prescription processing, insurance documentation, inventory)
- Ensure compliance with laws, regulations, professional ethical standards, and agencies that pertain to pharmacy practice

COM 2250	Organizational Communication	3
HPR 1011	CPR for Professionals	0.5
PHT 1011	Introduction to Pharmacy	3
PHT 1012	Pharmacy Law	2
PHT 1014	Computer Skills for Pharmacy Technicians	1
PHT 1015	Pharmacology I	3
PHT 1016	Pharmacology II	3
PHT 1035	Pharmaceutical Calculations & Compounding Techniques	4
PHT 1040	Institutional Pharmacy	3
PHT 1041	Community Pharmacy	3
PHT 1070	Pharmacy Clinical: Institutional	4
PHT 1071	Pharmacy Clinical: Community	4
Total Credit Hours		**33.5**

Additional information available on the Pharmacy Technician Department website at www.pikespeak.edu/programs/pharmacy-technician.

Phlebotomy Certificate

Recommended basic skills courses are
- College Readiness in English

In the Phlebotomy certificate program, students will learn theory, anatomy and physiology, microbiology, and proficiency in collection of tissue and blood samples from patients in a variety of settings. Students will learn customer service, communication skills necessary to work with patients and legal issues governing medical concerns and ethical issues. Career options are covered, and students will be prepared for a career in phlebotomy. Upon successful completion of the required courses, students will qualify to take the National Registry Board Exam for Registered Phlebotomy Technician (RPT). Students must be 18 years of age to register for HPR 1020 and HPR 2020. This certificate can be completed within two semesters if coursework is completed as advised. Some credits from this program may be applied to the Medical Assistant AAS degree option. Credits may also be applied to the Allied Health AAS degree.

Students must have a grade of C or better in all courses to pass certification requirements.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have permission of coordinator to enroll.

Clinical experience included in HPR 1020 and HPR 2020 courses require additional considerations prior to enrollment, which include:

- Proof of vaccines or blood titers for: tuberculin skin tests, proof of measles, rubella and rubeola, proof of hepatitis B, current year flu vaccination, chickenpox (Varicella), and a current tetanus and COVID vaccinations if completed (may be required depending on site);
- Criminal background checks on all students;
- For specific disqualifiers on the background investigation, students should contact a MOT faculty advisor;
- Students who do not obtain the PPSC approved criminal background investigation will not be able to enroll in the two phlebotomy courses, HPR 1020 and HPR 2020;
- Take and pass drug and alcohol screening prior to their phlebotomy clinical experience;
- Students must be at least 18 years of age to qualify for certain courses (HPR 1020 and HPR 2020) within this program;
- Current CPR certification;
- Students will need to obtain a college ID special issue for clinical access.

Failure to pass the criminal background or drug screen test will result in the inability to complete the desired certification or degree.

The criminal background check and drug screening process is completed online through the PPSC Human Resources Department, with associated cost for the background check and urine drug screening services. Further information is available on the program home page and will be provided upon advising with the program coordinator and the first day of class for HPR 1020 and HPR 2020.

Program Learning Outcomes

Upon completion of the Phlebotomy certificate program, students should be able to:

- Illustrate body system structures
- Apply medical terminology in appropriate situations
- Discuss legal and ethical issues as applicable to health professions
- Apply effective interpersonal skills for diverse patient and medical professionals
- Obtain blood and other body specimens for laboratory analysis
- Perform point of care testing

HPR 1006	Customer Service in Healthcare	2
HPR 1008	Law & Ethics for Health Professions	2
HPR 1020	Phlebotomy	4
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
HPR 2020	Advanced Phlebotomy	4
Total Credit Hours		**16**

Additional information available on the Phlebotomy Department website at www.pikespeak.edu/programs/phlebotomy.

Physical Therapist Assistant

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Physical therapist assistants (PTAs) work as part of a team to provide physical therapy services under the direction and supervision of the physical therapist. PTAs assist the physical therapist in the treatment of individuals of all ages, from newborns to the very oldest, who have medical problems or other health-related conditions that limit their abilities to move and perform functional activities in their daily lives.

The physical therapist is responsible for the services provided by the PTA. Physical therapists (PTs) are health care professionals who examine each individual and develop a plan using treatment techniques to promote the ability to move, reduce pain, restore function, and prevent disability. In addition, PTs work with individuals to prevent the loss of mobility before it occurs by developing fitness- and wellness-oriented programs for healthier and more active lifestyles.

PTAs provide care for people in a variety of settings, including hospitals, private practices, outpatient clinics, home health agencies, schools, sports and fitness facilities, work settings, and nursing homes.

Program Learning Outcomes

Upon completion of the Physical Therapist Assistant degree program, students should be able to:

- Eligible to sit for Licensure examination
- Work under the supervision of a physical therapist in an ethical, legal, safe, and professional manner
- Implement a comprehensive treatment plan developed by a physical therapist promoting optimal outcomes for patients
- Recognize the relationship between concepts learned from liberal arts and basic science coursework and physical therapy knowledge and skills
- Demonstrate effective oral, written, and nonverbal communication in a culturally competent manner with patients and their families, colleagues, other health care providers, and the public
- Interact skillfully with patients across the life span
- Demonstrate a commitment to professional growth and life-long learning

General Education Courses

BIO 2101	Human Anatomy and Physiology I: SC1	4
COM 1150	Public Speaking	3
ENG 1031	Technical Writing	3
or		
ENG 1021	English Composition I: CO1	(3)
MAT 1140	Career Mathematics	3
PHY 1105	Conceptual Physics w/Lab: SC1	4
PSY 1001	General Psychology I: SS3	3
		20

Additional Required Courses

HPR 1017	Anatomical Kinesiology	3
HPR 1039	Medical Terminology	2
PTA 1010	Basic Patient Care in Physical Therapy	5
PTA 1015	Principles and Practice of Physical Therapy	2
PTA 1020	Modalities in Physical Therapy	5
PTA 1024	Rehab Principles of Medical I	2
PTA 1031	Professional Communications I	1
PTA 1034	Rehab Principles of Medical II	2
PTA 1040	Clinical Kinesiology	5
PTA 1041	Professional Communications II	1
PTA 2005	Psychosocial Issues in Health Care	2
PTA 2030	Orthopedic Assessment and Management Techniques	5
PTA 2040	Neurologic Assessment and Management Techniques	5
PTA 2051	Professional Communications III	1
PTA 2078	PTA Seminar	2
PTA 2080	PTA Internship I	4
PTA 2081	PTA Internship II	5
PTA 2082	PTA Internship III	5
		57
Total Credit Hours		**77**

Additional information available on the Physical therapist assistants Department website at www.pikespeak.edu/programs/physical-therapist-assistant.

Pikes Peak Regional Law Enforcement Academy

Certificate

Recommended basic skills courses are
- College Readiness in English

The Pikes Peak Regional Law Enforcement Academy provides qualified individuals the opportunity to gain the skills to become a law enforcement officer. The Academy offers a basic recruit curriculum sanctioned by the Peace Officers Standards and Training (P.O.S.T.). During their enrollment, students take approximately 525 hours of coursework. At the end of the training program, P.O.S.T. administers the final certification exam. Those who successfully complete the exam are granted P.O.S.T. certification for three years. Colorado State Law requires that all individuals be P.O.S.T. certified prior to applying to a law enforcement agency. * Candidates will be subject to appropriate background checks.

Admission to the Pikes Peak Regional Law Enforcement Academy is accomplished through an application and selection process. Admission to the college does not guarantee admission into the Academy.

Additional requirements for admission to the Pikes Peak Regional Law Enforcement Academy may apply.

*Some agencies may require employees to attend their academy as a condition of employment.

Program Learning Outcomes

Upon completion of the Pikes Peak Regional Law Enforcement Academy certificate program, students should be able to:

- Perform entry level duties of a peace officer (e.g., collect evidence, perform a vehicle stop, conduct interviews, write police reports)
- Recognize and explain criminal and traffic code violations
- Employ appropriate arrest control techniques
- Drive a law enforcement vehicle under emergency or pursuit conditions
- Use and handle police firearms effectively

LEA 1001	Basic Police Academy I	6
LEA 1002	Basic Police Academy II	12
LEA 1003	Basic Law Enforcement Academy III	2
LEA 1004	Basic Law Enforcement Academy IV	1
LEA 1005	Basic Law	8
LEA 1006	Arrest Control Techniques	3
LEA 1007	Law Enforcement Driving	3
LEA 1008	Firearms	3
PED 1010	Fitness Center Activity I	1
Total Credit Hours		**39**

Additional information available on the Law Enforcement Academy Department website at www.pikespeak.edu/programs/law-enforcement-academy.

Professional Photography

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This program prepares the students for entry-level work in some of the following creative and exciting areas: portrait, commercial, outdoor, photojournalism, product, and fine-art photography. In addition, students may enter support industries, which include photo digital imaging and enhancement and photo lab technician. Students receive a blend of knowledge in technical camera skills, composition and creative thought, and computer software. Students will also choose from a variety of course electives.

Maximizing student success in the Professional Photography program is the department goal. The program faculty recommends that students develop the following desirable skill and knowledge foundations to enhance student success:

- advanced college level study skills
- working knowledge of algebraic principles and basic measurement
- college-level reading, writing, comprehension, and study skills
- working knowledge and application of college-level English
- demonstrated time management skills
- keyboarding, mouse, and computer experience

It is strongly recommended that students see an advisor for program planning. Students may complete basic skill deficiencies concurrently with the beginning courses in the program. Students must arrange with advisors to remedy deficiencies in program requirements. Please call 719-502-3130 for advising.

Students can access detailed descriptions of each program course under the ART, PHO and MGD prefixes lists.

Program Learning Outcomes

Upon completion of the Photography degree program, students should be able to:

- Describe photography works and techniques using the appropriate vocabulary
- Convey a message through a visual medium in a way that reflects mastery of artistic composition
- Produce visual imagery that shows a mastery of technical knowledge in camera operation, lighting, and computer manipulation
- Evaluate the creative and compositional aspects of photography using a variety of styles and genres
- Critically analyze and interpret photographic images
- Produce a professional-level body of photographic work

General Education Courses

ART 1110	Art Appreciation: AH1	3
COM 1150	Public Speaking	3
or		
COM 1250	Interpersonal Communication: SS3	(3)
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1021	English Composition I: CO1	3
MAT 1140	Career Math	3
		15

Additional Required Courses

ART 1115	History of Photography	3
ART 2405	Portrait Photography	3
PHO 1020	Fundamentals of Photography	3
or		
ART 1401	Digital Photography I	(3)
PHO 2005	Professional Digital Photo I	3
PHO 2026	Digital Workflow Management	3
PHO 2032	Professional Portraiture	3
PHO 2034	View Camera/Lighting Technique	3
PHO 2036	Product Photography	3
PHO 2037	Advanced Lighting Technique	3
PHO 2060	Events & Wedding Photography	3
PHO 2063	Digital Capture Processing III	3
PHO 2080	Internship	1
PHO 2081	Internship	1
PHO 2187	Business of Photography	3
PHO 2188	Portfolio & Career Exploration	3
Elective	Choose nine (9) from the list below	9
		50
Total Credit Hours		**65**

Electives

ART 1113	Art History 1900 to Present: AH1	3
ART 2407	Landscape Photography	3
BUS 1015	Introduction to Business	3
MGD 1011	Adobe Photoshop I	3
MGD 2011	Adobe Photoshop II	3
MGD 2059	Management & Production	3
MGD 2068	Business for Creatives	3
PHO 1043	Perception & Photography I	3
PHO 2035	Architectural Photography	3
PHO 2066	Pro Digital Workflow: Software	3

Certificates

Location Photography

This Location Photography certificate is designed to prepare students to shoot photographs in a variety of settings outside of the studio. Students learn traditional and contemporary approaches to landscape photography, operate image manipulation software using scanning equipment and software tools, and also learn about freelance work and the business of photography.

Program Learning Outcomes

Upon completion of the Location Photography certificate program, students should be able to:

- Use traditional and contemporary approaches to landscape photography
- Create photographic projects using a variety of digital imaging techniques
- Create a business identity package including résumés, cover letters, and promotional pieces

ART 2407	Landscape Photography	3
PHO 1020	Fundamentals of Photography	3
or		
ART 1401	Digital Photography I	(3)
PHO 2005	Professional Digital Photo I	3
PHO 2026	Digital Workflow Management	3
PHO 2187	Business of Photography	3
Total Credit Hours		**15**

Photography Post Production & Output

This Photography Post Production & Output certificate is designed to prepare students to use various technical and creative approaches to the post production of photographs. Students learn traditional and contemporary approaches to landscape photography, operate image manipulation software using scanning equipment and software tools, and learn about freelance work and the business of photography. Students also learn about freelance work and the business of photography. Students create a computer-based portfolio and a printed presentation portfolio of their work.

Program Learning Outcomes

Upon completion of the Photography Post Production and Output certificate program, students should be able to:

- Create photographic projects using a variety of digital imaging techniques
- Use professional post-processing techniques to enhance digital captures
- Create computer-based and printed photographic portfolios
- Create a business identity package including résumés, cover letters, and promotional pieces

MGD 1011	Adobe Photoshop I	3
PHO 1020	Fundamentals of Photography	3
or		
ART 1401	Digital Photography I	(3)
PHO 2005	Professional Digital Photo I	3
PHO 2026	Digital Workflow Management	3
PHO 2063	Digital Capture Processing III	3
PHO 2187	Business of Photography	3
PHO 2188	Portfolio & Career Exploration	3
Total Credit Hours		**21**

Portrait Photography

This Portrait Photography certificate is designed to prepare students to shoot portrait photography in a variety of settings inside and outside of the studio. Students learn the technical and aesthetic aspects of studio and location portrait photography, as well as learning about the field of portraiture including event-based, environmental, editorial, and studio. Emphasis is placed on advanced camera and flash techniques, candid, formal and ceremonial photography, as well as the business and planning aspects of professional photography at events, weddings, graduations, and other similar occasions.

Program Learning Outcomes

Upon completion of the Portrait Photography certificate program, students should be able to:

- Create a business identity package including résumés, cover letters, and promotional pieces
- Use various lighting techniques and schemes required for portrait photography
- Use advanced camera and flash techniques common to events and wedding photography

ART 2405	Portrait Photography	3
PHO 1020	Fundamentals of Photography	3
or		
ART 1401	Digital Photography I	(3)
PHO 2005	Professional Digital Photo I	3
PHO 2026	Digital Workflow Management	3
PHO 2032	Professional Portraiture	3
PHO 2060	Events & Wedding Photography	3
Total Credit Hours		**18**

Additional information available on the Professional Photography Department website at www.pikespeak.edu/programs/photography.

Radio and Television

Associate of Applied Science Degree

Recommended basic skills courses are

- College Readiness in English
- College Readiness for Quantitative Literacy

The AAS degree in RTV will prepare you to enter the television, radio and online content creation industries. In addition to course work, and to enhance the learning process, you will also complete internships at local broadcast and/or video production facilities. When you successfully complete the AAS degree in RTV you may be employed as an announcer, producer, director, writer, multimedia journalist, board operator or in a number of other non-broadcast occupations such as audio or video production.

Program Learning Outcomes

Upon completion of the Radio & Television degree program, students should be able to:

- Produce and direct live television programs including: News segments, interview shows, Sports updates, and Weathercasts
- Produce, shoot, and edit television commercials, silent films, and institutional videos
- Produce and record radio: promotions, news updates, commercials, and regular airtime
- Operate necessary production equipment
- Write effective scripts for a multitude of productions, from commercials to newscasts
- Work in, and foster, a cooperative, team environment

General Education Courses

ANT 1001	Cultural Anthropology: SS3	3
or		
SOC 1001	Introduction to Sociology I: SS3	(3)
or		
PSY 1001	General Psychology I: SS3	(3)
BUS 1015	Introduction to Business	3
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
ENG 1021	English Composition I: CO1	3
or		
COM 1150	Public Speaking	(3)
MAT 1140	Career Math	3
		15

Additional Required Courses

RTV 1000	Introduction to Electronic Media	3
RTV 1001	Radio Programming & Production I	3
RTV 1002	Beginning Television	3
RTV 1003	Writing for Television & Radio	3
or		
RTV 1004	Corporate Scriptwriting	(3)
RTV 1006	Principles of Audio	3
or		
RTV 2003	Audio Mixing	(3)
RTV 1008	News & Sports Writing & Reporting	3

RTV 1082	Internship–Radio Station/Audio Production Company	4
or		
RTV 1083	Internship–Television Studio/Video Production Company	(4)
or		
RTV 1180	Internship–KEPC Radio	(4)
or		
RTV 1181	Internship–College ITV Studio	(4)
RTV 1005	Basic Video Production	3
RTV 2001	Radio Programming & Production II	3
or		
RTV 2002	Advanced Television Production	(3)
RTV 2007	Broadcast Management	3
RTV 2080	Internship-TV Studio/Video Production II	3
or		
RTV 2083	Internship-Radio Station/Audio Production II	(3)
or		
RTV 2181	Internship in the News-KEPC Radio	(3)
or		
RTV 2182	Internship-KEPC Radio II	(3)
or		
RTV 2184	Internship in Telecommunications	(3)
Elective	Choose twelve (12) hours from list below	12
		46
Total Credit Hours		**61**

Electives

MGD 1002	Introduction to Multimedia	3
MGD 1011	Adobe Photoshop I	3
MGD 1012	Adobe Illustrator I	3
MGD 1041	Web Design I	3
MGD 1064	Digital Video Editing I	3
MGD 1065	After Effects I	3
MGD 2011	Adobe Photoshop II	3
MGD 2012	Adobe Illustrator II	3
PHO 1001	Professional Photography I	3
PHO 1005	Photo & Computer Orientation	2
PHO 1020	Fundamentals of Photography	3
RTV 1003	Writing for Television & Radio	3
RTV 1004	Corporate Scriptwriting	3
RTV 1006	Principles of Audio	3
RTV 1082	Internship–Radio Station/Audio Production Company	4
RTV 1083	Internship–Television Studio/Video Production Company	4
RTV 1180	Internship–KEPC Radio	4
RTV 1181	Internship–College ITV Studio	4
RTV 2001	Radio Programming & Production II	3
RTV 2003	Audio Mixing	3
RTV 2005	Advanced Video Production	3
RTV 2080	Internship–TV Studio/Video Production II	3
RTV 2083	Internship–Radio Station/Audio Production II	3
RTV 2181	Internship in the News–KEPC Radio	3
RTV 2182	Internship–KEPC Radio II	3
RTV 2184	Internship in Telecommunications	3
THE 1011	Acting I	3
THE 1040	Stage Dialects	1
THE 2004	Voice & Articulation I	2
THE 2016	Theatre Lighting & Design	3

Certificates

Advanced Radio Production and Operations

Students who elect to complete an Advanced Radio Production and Operations certificate learn specialized broadcast skills in a shorter period of time than they would with an Associate of Applied Science degree. Students learn about radio programming, formats, and audience rating surveys, professional writing techniques for television and radio, corporate scriptwriting, as well as news and sports writing, and the role of the Federal Communications Commission. Additionally, students learn about broadcasting and production equipment and how to use audio equipment and mixer to produce audio tracks for radio production.

Program Learning Outcomes

Upon completion of the Advanced Radio Production and Operations certificate program, students should be able to:

- Write scripts for television, radio, and institutional video productions
- Report news and sporting events by radio broadcasts
- Create audio tracks for radio and television productions
- Manage day-to-day radio and television station operations
- Apply management skills in the broadcast workplace and arena

RTV 1001	Radio Programming & Production I	3
RTV 1003	Writing for Television & Radio	3
or		
RTV 1004	Corporate Scriptwriting	(3)
RTV 1006	Principles of Audio	3
RTV 1008	News & Sports Writing & Reporting	3
RTV 1082	Internship–Radio Station/Audio Production Company	4
RTV 1180	Internship–KEPC Radio	4
RTV 2001	Radio Programming & Production II	3
RTV 2003	Audio Mixing	3
RTV 2007	Broadcast Management	3
RTV 2083	Internship-Radio Sta/Audio Production II	3
Total Credit Hours		**32**

Advanced Television and Video Production

Students who elect to complete an Advanced Television and Video Production certificate learn specialized broadcast skills in a shorter period of time than they would with an Associate of Applied Science degree. Students learn about television production, from concept through script to actual studio production, preproduction, and postproduction, professional writing techniques for television and radio, corporate scriptwriting, as well as news and sports writing. Additionally, students learn about broadcasting and production equipment and how to use audio equipment and mixer to produce audio tracks for television production, basic videotape production and editing on linear and non-linear editing systems.

Program Learning Outcomes

Upon completion of the Advanced Television and Video Production certificate program, students should be able to:

- Write scripts for television, radio, and institutional video productions
- Create audio tracks for radio and television productions
- Create advanced video productions using industry standards
- Manage day-to-day radio and television station operations

RTV 1002	Beginning Television	3
RTV 1003	Writing for Television & Radio	3
RTV 1004	Corporate Scriptwriting	3

RTV 1005	Basic Video Production	3
RTV 1006	Principles of Audio	3
RTV 1083	Internship–Television Studio/Video Production Company	4
RTV 1181	Internship–College ITV Studio	4
RTV 2002	Advanced Television Production	3
RTV 2005	Advanced Video Production	3
RTV 2007	Broadcast Management	3
Total Credit Hours		**32**

Basic Radio Production

Students who elect to complete a Basic Radio Production certificate learn specialized broadcast skills in a shorter period of time than they would with an Associate of Applied Science degree. Students learn about radio programming, formats, and audience rating surveys, professional writing techniques for television and radio. Additionally, students learn about basic audio production techniques and how to use audio equipment and mixer to produce audio tracks for radio and television production. Students learn the fundamentals of audio mixing from the audio source to final master and demonstrate linear and non-linear master mixing. Students get on-the-air experience on the college FM radio station.

Program Learning Outcomes

Upon completion of the Basic Radio Production certificate program, students should be able to:

- Write scripts for television, radio, and institutional video productions
- Create audio tracks for radio and television productions
- Report news, sports events, and weather conditions by radio broadcast

RTV 1001	Radio Programming & Production I	3
RTV 1003	Writing for Television & Radio	3
or		
RTV 1004	Corporate Scriptwriting	(3)
RTV 1006	Principles of Audio	3
RTV 1180	Internship–KEPC Radio	4
RTV 2001	Radio Programming & Production II	3
RTV 2003	Audio Mixing	3
Total Credit Hours		**19**

Basic Television Production

Students who elect to complete a Basic Television Production certificate learn specialized broadcast skills in a shorter period of time than they would with an Associate of Applied Science degree. Students learn about television production, from concept through script to actual studio production, preproduction, and postproduction. Additionally, students learn about broadcasting and production equipment and how to use audio equipment and mixer to produce audio tracks for television production, basic videotape production and editing on linear and non-linear editing systems.

Program Learning Outcomes

Upon completion of the Basic Television Production certificate program, students should be able to:

- Write scripts for television, radio, and institutional video productions
- Create video and television productions (e.g., commercial, documentary)
- Discuss the ethics and legal aspects of television production and aesthetics

RTV 1002	Beginning Television	3
RTV 1003	Writing for Television & Radio	3
	or	
RTV 1004	Corporate Scriptwriting	(3)
RTV 1005	Basic Video Production	3
RTV 1181	Internship–College ITV Studio	4
RTV 2002	Advanced Television Production	3
RTV 2005	Advanced Video Production	3
Total Credit Hours		**19**

Additional information available on the Radio & Television Department website at www.pikespeak.edu/programs/broadcasting-electronic-media.

Radiology: University of Colorado Health / Memorial Health System School of Radiologic Technology / PPSC Collaborative Program

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy for MAT 1140
- College Readiness for Algebra for MAT 1340

This collaborative program offers the student the opportunity to earn an AAS Degree in Radiologic Technology.

The student will fulfill the PPSC residency requirements ideally with the pre-requisite courses. If any or all of the pre-requisite courses are transferred to PPSC, then to fulfill the residency course work, the student must choose up to 15 credit hours from the electives course list below. These courses will assist in the selection process to the Memorial program. They will apply to the Memorial program. There is no guarantee of admission. Upon completion of the program, the Memorial program coursework will be transferred back to PPSC for 57 hours. The student will then be awarded the degree. Students must meet the minimum credit requirement of 75 credits for this degree. A&P classes must have an in-class lab section and completed within 7 years.

Program Learning outcomes

Upon completion of the Radiologic Technology degree program, students should be able to:

- Use proper positioning skills
- Practice patient safety
- Communicate in the healthcare arena both orally and in writing
- Complete radiological exams under various conditions

General Education Courses

BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
ENG 1021	English Composition I: CO1	3
MAT 1140	Career Math	3
	or	
MAT 1340	College Algebra: MA1	(4)
PSY 1001	General Psychology I: SS3	3
		17-18

Additional Required Courses

RTE 1001	Introduction to Radiography	2
RTE 1011	Radiographic Patient Care	2
RTE 1021	Radiologic Procedures I	3
RTE 1022	Radiologic Procedures II	3
RTE 1041	Radiographic Equipment & Imaging I	3
RTE 1042	Radiographic Equipment & Imaging II	3
RTE 1081	Internship: Radiographic I	5
RTE 1082	Internship: Radiographic II	5
RTE 1083	Internship: Radiographic III	7
RTE 2021	Advanced Medical Imaging	3
RTE 2031	Radiation Biology/Protection	2
RTE 2081	Radiographic Internship IV	8
RTE 2082	Radiographic Clinical Internship V	8
RTE 2089	Capstone	3
		57
Total Credit Hours		**75**

Electives

(Please contact your Radiology Technologist advisor before applying these to the AAS degree.)

CHE 1111	General College Chemistry w/Lab: SC1	5
CSC 1005	Computer Literacy	3
HPR 1006	Customer Service in Healthcare	2
HPR 1008	Law & Ethics for Health Professions	2
HPR 1020	Phlebotomy	4
HPR 1039	Medical Terminology	2
HPR 1045	Medical Record Terminology	2
HPR 2020	Advanced Phlebotomy	4
MAP 1050	Pharmacology for Medical Assistants	3
NUA 1001	Nurse Aide Health Care Skills	4
NUA 1070	Nurse Aide Clinical Experience	1
NUA 1071	Advanced Nurse Aide Clinical	1
PHY 1111	Physics: Algebra-Based I w/Lab: SC1	5
PSY 2440	Human Growth & Development: SS3	3

Additional information available on the Radiologic Technology / PPSC Collaborative Program Department website at www.pikespeak.edu/programs/radiologic-technology.

Robotics and Automation Systems Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This Associate degree program in Robotics and Automation is designed to prepare individuals for entry-level technician careers in the robotics and automation field. Graduates become qualifies to work in electronic automation and in control systems environments. Students in this program focus on the principles behind robotic and automation technology. Classroom instruction focuses on principles of robotics, design, programming, operation of robotic systems, and robotics system maintenance. Automation systems include topics such as Programmable Logic Controllers, Sensors and Transducers and Fundamentals of DC/AC. Other classes focus on robotic language control, system repair, and robot computer systems, and design. A lab course is a mandatory component of this robotics degrees program, allowing students to work one-on-one with various types of robots and automation systems. To maximize student success in this program student are taught basic electronics and electronics assembly as well as other core course titles that include:

- Electro mechanics
- Mechatronics
- Microcomputer
- Electrical theory DC/AC

- Electrical circuits and wiring
- Computer aided design
- Robotic systems and design
- Supervisory Control and Data Acquisition
- Industrial Ethernet and Fiber Optic LANS
- Digital Devices
- Computer Aided Drafting 2D

Students who want to focus on a specific area of Robotics and Automation are encouraged to meet with the program faculty as there are options for electives and Certificate programs.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Robotics and Automation Systems Technology degree program, students should be able to:

- Follow safety policies and/or procedures according to industry standards
- Perform troubleshooting techniques
- Interpret, analyze, and evaluate technical material
- Apply understanding of electrical circuits in DC and AC circuits
- Program a robot to perform a variety of tasks

General Education Courses

CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 2250	Organizational Communication	3
ENG 1031	Technical Writing I: CO1 or higher	3
MAT 1140	Career Math or higher	3
PSY 1005	Psychology of Workplace Relationships	3
		15

Additional Required Courses

CAD 1100	Print Reading for Computer Aided Drafting	3
CAD 1101	Computer Aided Drafting I/2D I	3
EIC 2330	Instrument & Process Control II	4
EIC 2340	Supervisory Control & Data Acquisition	4
EIC 2751	Fiber Optics Certification	1
EIC 2757	Lan Certification/Repair/Troubleshooting	1
ELT 1004	Electronic Assembly	3
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2252	Motors & Controls	3
ELT 2266	Advanced Electronic Assembly	3
ELT 2357	Sensors & Transducers	3
ELT 2358	Programmable Logic Controllers	3
ELT 2359	Advanced Programmable Logic Controllers	3
ELT 2361	Microprocessors	3
ELT 2367	Introduction to Robotics	1
ELT 2368	Robotic Technologies	3
MAC 2040	CAD/CAM 2D	3
		51

Total Credit Hours		66

Electives

CAD 2455	SolidWorks/Mechanical	3
ELT 2080	Internship	3

Certificates

Advanced Manufacturing Electronics

Students will learn about the equipment and components of instrumentation and control systems found in the process and energy supply industries, as well as basic operation and applications of microprocessors. Students will also learn how to program a robot in a higher-level language to perform various tasks.

Program Learning Outcomes

Upon completion of the Advanced Manufacturing Electronics certificate program, students should be able to:

- Follow safety policies and/or procedures according to industry standards
- Interpret and draw wire diagrams, schematics, and ladder logic diagrams to implement automation systems
- Apply the principles of basic electronic theory including operations and applications of basic DC/AC circuits
- Use the SolidWorks software package to create advanced models, parts, assemblies, and related documents (e.g., bill of materials, parts lists)
- Diagnose, troubleshoot, and repair electronic system problems, while completing the appropriate documentation
- Build, troubleshoot, and repair fiber optic and Local Area Networks (LANs)
- Operate, program, maintain, troubleshoot Programmable Logic Controllers (PLCs
- Program, maintain, and troubleshoot robotic automated systems

CAD 1100	Print Reading for Computer Aided Drafting	3
CAD 2455	SolidWorks/Mechanical	3
CAD 2456	Advanced SolidWorks	3
EIC 2340	Supervisory Control & Data Acquisition	4
EIC 2751	Fiber Optics Certification	1
EIC 2757	Lan Certification/Repair/Troubleshooting	1
ELT 1004	Electronic Assembly	3
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2252	Motors & Controls	3
ELT 2266	Advanced Electronic Assembly	3
ELT 2358	Programmable Logic Controllers	3
ELT 2367	Introduction to Robotics	1
ELT 2368	Robotic Technologies	3
Total Credit Hours		38

Automated Systems

Students will learn the fundamentals of programmable logic controllers (PLCs) as they are applied in robotics and automation. Students also learn to test, repair, certify, and troubleshoot LAN and how to study, construct, test, and evaluate basic industrial control systems and common industrial processes.

Program Learning Outcomes

Upon completion of the Automated Systems certificate program, students should be able to:

- Interpret working drawings for various industries
- Interpret and draw wire diagrams, schematics, and ladder logic diagrams to implement automation systems
- Build, troubleshoot, and repair fiber optic networks and LANs
- Operate, program, maintain, troubleshoot PLCs

- Test and control common industrial processes using a variety of techniques and instruments (e.g., motors, generators, regulators, sensors, transducers)
- Troubleshoot digital circuits
- Construct, test, and troubleshoot electronic circuits
- Program, maintain, and troubleshoot advanced automated systems

CAD 1100	Print Reading for Computer Aided Drafting	3
EIC 2330	Instrument & Process Control II	4
EIC 2751	Fiber Optics Certification	1
EIC 2757	Lan Certification/Repair/Troubleshooting	1
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2252	Motors & Controls	3
ELT 2357	Sensors & Transducers	3
ELT 2358	Programmable Logic Controllers	3
Total Credit Hours		**25**

Basic Automation

Students will acquire skills needed to address operating, monitoring, programming, troubleshooting, and repairing PLC controlled lab trainers as well as actual industrial equipment. Students will learn how to construct, test, and evaluate basic industrial control systems, including AC/DC motors, stepper motors, power sources, generators, tachometers, line diagrams and logic functions.

Program Learning Outcomes

Upon completion of the Basic Automation certificate program, students should be able to:

- Operate, program, maintain, troubleshoot, and repair programmable logic controllers (PLCs)

ELT 2252	Motors & Controls	3
ELT 2358	Programmable Logic Controllers	3
Total Credit Hours		**6**

Basic Electronics

Students will learn about the testing, repair, certifying and troubleshooting of LAN as well as basic skills needed for many careers in electronics and related fields. Students also learn the basic logic concepts of computer circuits, including the troubleshooting of digital circuits.

Program Learning Outcomes

Upon completion of the Basic Electronics certificate program, students should be able to:

- Test, repair, certify, and troubleshoot a variety of LANs and fiber optic systems
- Construct, test, and troubleshoot electronic circuits
- Troubleshoot digital circuits
- Solder electronic components on circuit boards

EIC 2751	Fiber Optics Certification	1
EIC 2757	Lan Certification/Repair/Troubleshooting	1
ELT 1004	Electronic Assembly	3
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
Total Credit Hours		**12**

Electronic Assembly

Students will learn about electronic assembly methods with an emphasis on processes, safety, component recognition, and soldering techniques for both through hole and surface mount components. Students learn how to repair, modify and rework broken or defective printed circuit boards.

Program Learning Outcomes

Upon completion of the Electronic Assembly certificate program, students should be able to:

- Interpret working drawings for various industries
- Troubleshoot digital circuits
- Build, troubleshoot, and repair printed circuit boards

CAD 1100	Print Reading for Computer Aided Drafting	3
ELT 1004	Electronic Assembly	3
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2266	Advanced Electronic Assembly	3
Total Credit Hours		**16**

Robotic Technology

Students will learn to program a robot in a higher-level language to perform various tasks, including the building and interfacing of sensor circuits. Students will also learn about the technologies and equipment used in manufacturing automation and process control. This includes axis configurations, work envelopes, programming, troubleshooting, and maintenance.

Program Learning Outcomes

Upon completion of the Robotic Technology certificate program, students should be able to:

- Program, maintain, and troubleshoot robotic or similar advanced automated systems
- Operate, program, maintain, troubleshoot, and repair Local Area Networks (LANs), fiber optic networks and Programmable Logic Controllers (PLCs)
- Troubleshoot digital circuits
- Construct, test, and troubleshoot electronic circuits
- Operate a variety of industrial control systems including supervisory control and data acquisition (SCADA) systems

EIC 2330	Instrument & Process Control II	4
EIC 2340	Supervisory Control & Data Acquisition	4
EIC 2751	Fiber Optics Certification	1
EIC 2757	Lan Certification/Repair/Troubleshooting	1
ELT 1206	Fundamentals of DC/AC	4
ELT 1246	Digital Devices in Computers	3
ELT 2357	Sensors & Transducers	3
ELT 2358	Programmable Logic Controllers	3
ELT 2367	Introduction to Robotics	1
ELT 2368	Robotic Technologies	3
Total Credit Hours		**27**

Additional information available on the Robotics & Automation Systems Technology Department website at www.pikespeak.edu/programs/robotics-automation-technology.

Sign Language Interpreter Preparation

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Sign Language Interpreter program will provide you with exceptional knowledge and a skill set that will prepare you to partner with the Deaf community. When you complete the AAS Degree in Sign Language Interpretation you will be prepared for entry-level, pre-certified interpreter/translator employment.

Students must submit a Letter of Intent to the Interpreter Preparation Program. In order to be accepted into the program, students must demonstrate proficiency in American Sign Language by:

1. passing the proficiency test at 80%, or
2. receiving a grade of "B" or above in both ASL 1121 and ASL 1122.

In addition, program requirements include demonstrated mastery of program skills. Therefore, students must receive a grade of "B" or better in all ASL and IPP courses and at least a "C" in all other general education coursework.

To progress to the Interpreting Internship, students must:

1. satisfy all program requirements with a grade of "B" or better,
2. have completed all general education courses and
3. have an overall G.P.A of a 3.0 or higher.

As of July 2012, the Registry of Interpreters for the Deaf (RID) requires a bachelor's degree for national certification. PPSC has partnered with Regis University and Sienna Heights for full transfer of the AAS degree for a Bachelor of Applied Science degree. This BAS degree satisfies the RID educational standards for certification.

Contact the Interpreter Preparation Office at 719-502-3200 for more information.

Program prerequisite: College Readiness in English, College Readiness for Quantitative Literacy, or placement scores of ENG 1021.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Sign Language Interpreter Preparation degree program, students should be able to:

- Identify tenets of the Registry of Interpreters for the Deaf Code of Professional Conduct and apply professional practice to various scenarios
- Analyze situation to determine modality most appropriate to client language need (interpret/transliterate)
- Interpret/transliterate for a diverse population (with native and non-native speakers of varying ages, race, gender, education, socio-economic status, and ethnicity)
- Demonstrate preparation and brainstorming skills in preparing for assignments and demonstrate flexibility in adapting to changes that arise during an assignment
- Adjust to the interpreting/transliterating needs of the consumer based on consumer signing style and/or feedback
- Identify and apply team interpreting practices during interactive interpreting scenarios

General Education Courses

ANT 1001	Cultural Anthropology: SS3	3
CIS 1018	Introduction to PC Applications	3
or		
CSC 1005	Computer Literacy	(3)
COM 1150	Public Speaking	3
ENG 1021	English Composition I: CO1	3
MAT 1140	Career Math	3
or		
MAT 1240	Mathematics for the Liberal Arts: MA1 or higher	(3)
		15

Additional Required Courses

ASL 1123	American Sign Language III	5
ASL 2215	ASL Literature	3
ASL 2221	American Sign Language IV: AH4	3
ASL 2222	American Sign Language V: AH4	3
IPP 1021	Aspects of Interpreting I	3
IPP 1022	Aspects of Interpreting II	3
IPP 1025	Oral Transliterating	2
IPP 1031	Text Analysis	3
IPP 1032	Interpretation Analysis	3
IPP 1045	Deaf People in Society	2
IPP 1047	Survey of Deaf Culture	3
IPP 2005	Educational Interpreting	4
IPP 2007	Specialized & Technical Communication	2
IPP 2025	English to ASL Interpreting	3
IPP 2027	ASL to English Interpreting	3
IPP 2029	Transliterating	3
IPP 2035	Advanced Interpreting	4
IPP 2079	Interpreter Seminar	3
IPP 2081	Internship	5
Total Credit Hours		**75**

Certificate

Basic ASL Communication Skills

The ASL certificate is for students who want to broaden their horizons by learning a new language and who plan to use their skills for casual communication as opposed to professional interpreting. ASL is the fourth most used language in the United States and can be a valuable asset in any field that is customer or consumer related. In today's competitive market, every additional skill on your resume places you one step closer to your dream job. This certificate can be a starting point for your new career or can enhance any established degree or profession.

Program Learning Outcomes

Upon completion of the Basic ASL communication Skills certificate program, students should be able to:

- Negotiate a signing environment with an increased repertoire of sign vocabulary used in context
- Perform linguistic and culturally appropriate communication techniques that include introductions, attention getting techniques, attending behaviors, interrupting methods, and turn-taking
- Analyze stereotyping, labeling, and oppression regarding Deaf people and the Deaf community and the impact each has on creating stigma on deaf peoples' lives
- Discuss bilingualism and biculturalism

- Identify different national, state, and local Deaf organizations and their purposes
- Describe state and national interpreter certification requirements
- Explain the seven tenets of the Registry of Interpreters for the Deaf Code of Professional Conduct
- Summarize the roles and responsibilities of interpreters
- Apply the Demand Control-Schema to case studies

ASL 1123	American Sign Language III	5
ASL 2221	American Sign Language IV: AH4	3
IPP 1021	Aspects of Interpreting I	3
IPP 1045	Deaf People in Society	2
IPP 1047	Survey of Deaf Culture	3
Total Credit Hours		**16**

Additional information available on the Sign Language Interpreter Preparation Department website at www.pikespeak.edu/program/sign-language-interpreter.

Social Services Technician

Certificates

Recommended basic skills courses are
- College Readiness in English

This program prepares students to enter the social services career field at the paraprofessional level, or to achieve additional specialized training. The training includes individual casework skills, group skills, case management skills, and family group work skills. Students participate in supervised work experience in various social agencies within the community which often serves as an avenue to obtaining employment.

Social Services faculty recommends that to maximize the chances of success, students possess foundational skills in the following areas:

- effective study skills
- basic math skills
- reading and comprehension skills
- working knowledge and application of English skills
- time management and problem-solving skills

Students who want individualized program planning suggestions are encouraged to consult program faculty. Please call 719-502-3300 to schedule an appointment.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

NOTE: To be employed in the social work field it is expected that you will be able to pass background checks. This will include fingerprinting for the Colorado Bureau of Investigation and a Central Registry Inquiry.

Child Welfare

Students will gain generalized knowledge of Social Work to include specific coursework in Child Welfare as well as field experience in a social work internship.

Program Learning Outcomes

Upon completion of the Child Welfare certificate program, students should be able to:

- Develop a social history and assessment of client strengths and initial action plan
- Apply social work values and ethics in the helping relationship, including sensitivity to issues of diversity, spirituality, and welfare policies
- Implement case management plans, including linking clients to needed services

PSY 2551	Child Abuse & Neglect	3
SWK 1080	Internship I	6
SWK 2008	Social Work Case Management	3
SWK 2050	Social Welfare in the U.S.	3
SWK 2222	Introduction to Social Work Practice	3
Total Credit Hours		**18**

Gerontological

Students will gain generalized knowledge of Social Work to include specific coursework in the study of the social impact and methodology of working with aging populations. This certificate includes field experience in a social work internship.

Program Learning Outcomes

Upon completion of the Gerontological certificate program, students should be able to:

- Develop a social history and assessment of client strengths and initial action plan
- Apply social work values and ethics in the helping relationship, including sensitivity to issues of diversity, spirituality, and welfare policies
- Implement case management plans, including linking clients to needed services

SOC 2037	Sociology of Death & Dying SS3	3
SWK 1080	Internship I	6
SWK 2008	Social Work Case Management	3
SWK 2050	Social Welfare in the U.S.	3
SWK 2222	Introduction to Social Work Practice	3
Total Credit Hours		**18**

Social Services

Students will gain generalized knowledge of Social Work to include specific coursework in sociology as well as the methodology and techniques used in modern Social Work. This certificate includes field experience through a social work internship.

Program Learning Outcomes

Upon completion of the Social Services Technician certificate program, students should be able to:

- Develop a social history and assessment of client strengths and initial action plan
- Apply social work values and ethics in the helping relationship, including sensitivity to issues of diversity, spirituality, and welfare policies

- Implement case management and treatment plans, including linking clients to needed services and case consultation
- Discuss how biological, psychological, social, spiritual, and cultural systems influence human development throughout the lifespan

SOC 1001	Introduction to Sociology I: SS3	3
SWK 1000	Introduction to Social Work	3
SWK 1080	Internship I	6
SWK 2008	Social Work Case Management	3
SWK 2010	Human Behavior in the Social Environment I	3
SWK 2050	Social Welfare in the U.S.	3
SWK 2222	Introduction to Social Work Practice	3
Elective		3
Total Credit Hours		**27**

Students must consult with advisors for selection of elective courses.

Substance Abuse

Students will gain generalized knowledge of Social Work to include specific coursework in Substance Abuse Identification and treatment used in modern Social Work. This certificate includes field experience through a social work internship.

Program Learning Outcomes

Upon completion of the Substance Abuse certificate program, students should be able to:

- Discuss various issues related to working with people who exhibit substance or alcohol abuse
- Develop a social history and assessment of client strengths and initial action plan
- Apply social work values and ethics in the helping relationship, including sensitivity to issues of diversity, spirituality, and welfare policies
- Implement case management plans, including linking clients to needed services

SWK 1060	Introduction to Alcohol & Drugs	3
SWK 1080	Internship I	6
SWK 2008	Social Work Case Management	3
SWK 2050	Social Welfare in the U.S.	3
SWK 2222	Introduction to Social Work Practice	3
Total Credit Hours		**18**

Additional information available on the Social Services Technician Department website at www.pikespeak.edu/programs/social-work.

Surgical Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

The Surgical Technologist is an integral member of the surgical team including the surgeon, anesthesiologist, and nurse to deliver patient care before, during and after surgery. Before an operation, surgical technologist helps prepare the operating room by setting up surgical instruments and equipment. During the surgery, technologist pass instruments and other sterile supplies to surgeons and assistants.

This four-semester program develops the knowledge and skills for an entry level job as a Surgical Technologist. Graduates of this program are prepared to take the national certification examination for surgical technology once accreditation approval from CAAHEP has been received. The curriculum is in alignment with the standards set forth by the Association of Surgical Technologists (AST) core curriculum guidelines.

The surgical technologist can work in a variety of settings including hospitals, surgery departments, obstetric departments, and ambulatory surgery centers.

Program Learning Outcomes

Upon completion of the Surgical Technology degree program, students should be able to:

- Articulate the general characteristics of medical terminology and common use in the healthcare environment, and assign medical terminology as it relates to the whole body
- Identify types and functions of instruments and their uses
- Demonstrate the proper care and handling of surgical instruments
- Describe sterilization methods used in the operating room
- Articulate the concepts of the aseptic technique.
- Apply the correct methods and steps in the aseptic process
- Demonstrate the principles of aseptic technique when opening sterile supplies
- Adapt to the various types of work environments for surgical technologists and maintain professional behavior and appearance in all aspects of the medical field
- Communicate effectively with patients and members of the healthcare team
- Perform all assigned independent duties competently and efficiently as allowed by the state and federal laws

General Education Courses

BIO 2101	Human Anatomy & Physiology I w/Lab: SC1	4
BIO 2102	Human Anatomy & Physiology II w/Lab: SC1	4
BIO 2104	Microbiology w/Lab: SC1	4
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
or		
ENG 1022	English Composition II: CO2	(3)
MAT 1120	Math for Clinical Calculations	3
or		
MAT 1140	Career Math	(3)
PSY 2440	Human Growth & Development	3
		21

Additional Required Courses

HPR 1045	Medical Record Terminology	2
STE 1000	Fundamentals of Surgical Technology	6
STE 1001	Surgical Technology Skills Lab	4
STE 1005	Pharmacology for the Surgical Technologist	2
STE 1010	Surgical Procedures I	3
STE 1015	Surgical Procedures II	3
STE 1020	Surgical Procedures III	3
STE 1081	Internship I	4
STE 1082	Internship II	4
STE 1083	Internship III	6
STE 2068	Surgical Technical Seminar	2
		39
Total Credit Hours		**60**

Additional information available on the Surgical Technology Department website at www.pikespeak.edu/programs/surgical-technology.

Veterinary Assistant

Certificate

This program is designed for students wanting to complete a two semester Certificate in Veterinary Assisting and enter the workforce. The Veterinary Assistant certificate program provides training in veterinary health and handling of a variety of domestic animals with the focus on tasks for assisting the Veterinary Technician and Veterinarians to become a part of the veterinary medical team. Completion of all course work is required before the student is eligible for private-practice internship.

Program Learning Outcomes

Upon completion of the Veterinary Assistant certificate program, students should be able to:

- Demonstrate proper handling and restraint techniques
- Demonstrate appropriate assistance with diagnostic laboratory procedures
- Demonstrate initial assessment procedures for animals
- Identify clinical pharmacology

VET 1002	Veterinary Medical Terminology	1
VET 1003	Veterinary Assistant Restraint & Handling	2
VET 1004	Assistant Large Animal Nursing	1
VET 1009	Applied Companion Animal Behavior	3
VET 1014	Vet Assistant Lab & Clinical Procedures	3
VET 1017	Veterinary Assistant Surgery & Nursing Care	2
VET 1020	Office Procedure & Relations	2
VET 1083	Internship	2
Total Credit Hours		**16**

Additional information available on the Veterinary Assistant Department website at
www.pikespeak.edu/programs/veterinary-technology.

Water Environmental Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Algebra

The Water Environmental Technology Program is designed to prepare students for employment at the technician level in water and wastewater treatment operations. The curriculum includes science and math foundations, water and wastewater treatment techniques, field experiences and group projects. Local career opportunities in this ever-growing field will be available to the graduates of this program.

Program Learning Outcomes

Upon completion of the Water Environmental Technology degree program, students should be able to:

- Perform mathematical calculations specific to the water quality industry
- Explain the importance of safety practices in the water and wastewater industry
- Describe the fundamental business practices utilized in managing water or wastewater utilities
- Discuss drinking water regulatory requirements and their implementation

- Define specific terms associated with water quality management
- Prepare, analyze, interpret, and report results of water sample testing
- Apply principles of hydraulics and electricity to wastewater management practices
- Effectively communicate current events and advances in the water quality industry
- Define and describe the types, functions, layout of and equipment used in water management facilities (water distribution, water collection, wastewater treatment)

General Education Courses

COM 2300	Intercultural Communication: SS3	3
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
ENV 1111	Introduction to Environmental Science w/Lab: SC1	4
MAT 1140	Career Math	3
Elective	AAS General Elective course	2-3
		15-16

Additional Required Courses

WQM 1000	Introduction to Water Quality	3
WQM 1005	Specific Calculations for Water Quality Management	4
WQM 1006	Mechanical-Physical Treatment	3
WQM 1009	Water Distribution	3
WQM 1015	Water Sources & Supplies	3
WQM 1016	Conventional Surface Water Treatment	3
WQM 1018	Wastewater Collection Systems	3
WQM 1019	Basic Water Quality Analyses	4
WQM 1020	Water Quality Equipment Maintenance	3
WQM 1026	Safety & Security Systems	3
WQM 2000	Hydraulics for Water Quality Management	4
WQM 2012	Drinking Water Regulations	4
WQM 2016	Biological & Bacteriological Water Quality Analysis	4
WQM 2080	Internship	3
or		
WQM 2089	Capstone	(3)
		48
Total Credit Hours		**63-64**

Certificates

Wastewater Collection & Treatment

This Wastewater Collection & Treatment certificate is designed to prepare students for work in water and wastewater treatment facilities. Students learn about the calculations associated with water and wastewater treatment, components and design of collection systems, pipeline cleaning and maintenance, safety procedures performed in the water and wastewater industry, preventive maintenance, and repair maintenance of treatment plant equipment.

Program Learning Outcomes

Upon completion of the Wastewater Collection and Treatment certificate program, students should be able to:

- Operate and maintain a variety of water quality equipment
- Enhance treatment effective operations based on mathematical principles and calculations
- Design and implement safety procedures

WQM 1005	Specific Calculations for Water Quality Management	4
WQM 1006	Mechanical-Physical Treatment	3
WQM 1018	Wastewater Collection Systems	3
WQM 1020	Water Quality Equipment Maintenance	4
WQM 1026	Safety & Security Systems	3
Total Credit Hours		**17**

Water Distribution & Treatment

This Water Distribution & Treatment certificate is designed to prepare students for work in water and wastewater treatment facilities. Students learn about the calculations associated with water and wastewater treatment, selection and location of water storage facilities and the operation and maintenance of related equipment, contaminants and degradation inspection and monitoring, disinfection and emergency planning, safety procedures performed in the water and wastewater industry, and preventive maintenance and repair maintenance of treatment plant equipment.

Program Learning Outcomes

Upon completion of the Water Distribution and Treatment certificate program, students should be able to:

- Perform operations, testing, and maintenance requirements for water distribution systems
- Enhance treatment effective operations based on mathematical principles and calculations
- Design and implement safety procedures
- Operate and maintain a variety of water quality equipment

WQM 1005	Specific Calculations for Water Quality Management	4
WQM 1009	Water Distribution	3
WQM 1016	Conventional Surface Water Treatment	3
WQM 1020	Water Quality Equipment Maintenance	4
WQM 1026	Safety & Security Systems	3
Total Credit Hours		**17**

Additional information available on the Water Environmental Technology Department website at www.pikespeak.edu/programs/water-environmental-technology.

Welding

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

Training in welding is offered to those who wish to learn basic welding skills or to upgrade their knowledge in welding and fabrication. All welding classes are offered on a self-paced basis. Classes use course outlines, books, videos, and instructor-assisted instruction with practical hands-on training. Various types and thicknesses of material are welded in all positions with different welding processes. Courses in ornamental ironwork are also available. The degree program provides students with additional competencies in welding which will enhance their upward mobility.

Students are required to purchase personal protective equipment, tools, and textbooks. Students will receive a list of necessary equipment and books during orientation the first day of the course in which they enroll.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Welding degree program, students should be able to:

- Maintain a safe work environment by understanding and following Welding shop safety requirements
- Read and interpret an industry standard blueprint by generating a part
- Produce a multiple pass t-joint weldment in the 2F position utilizing the (SMAW) Shielded Metal Arc Welding process
- Produce a Stainless Steel t-joint weldment in the 2F position utilizing the (GTAW) Gas Tungsten Arc Welding process

General Education Courses

COM 2250	Organizational Communication	3
CSC 1005	Computer Literacy	3
MAT 1140	Career Math	3
Elective	AAS General Education Elective course	6
		15

Additional Required Courses

WEL 1000	Safety for Welders	1
WEL 1006	Blueprint Reading for Welders & Fitters	4
WEL 1013	Oxyfuel & Plasma Cutting	2
WEL 1014	Oxyacetylene Welding	2
WEL 1021	Structural Welding I	3
WEL 1022	Structural Welding II	3
WEL 1024	Gas Tungsten Arc Welding I	4
WEL 1025	Introduction to Gas Metal Arc Welding	4
WEL 2024	Gas Tungsten Arc Welding II	4
WEL 2025	Advanced Gas Metal Arc Welding	4
Elective	Choose twenty-six (26) hours from list below	26
		57
Total Credit Hours		**72**

Electives

MAC 1001	Introduction to Machine Shop	3
MAC 1010	Introduction to Engine Lathe	3
MAC 1020	Introduction to Milling Machine	3
MAC 2040	CAD/CAM 2D	3
MAC 2041	CAD/CAM 2D Lab	3
MAC 2052	Practical Metallurgy	3
WEL 1080	Internship	4
WEL 2000	Advanced CAD/CAM Cutting Process	4
WEL 2005	Introduction to Ornamental Iron	4
WEL 2030	Pipe Welding I	4
WEL 2031	Pipe Welding II	4
WEL 2050	Layout & Fabrication	4
WEL 2063	Applied Metal Properties	4
WEL 2064	Creative Welding	4
WEL 2080	Internship	4
WEL 2089	Capstone	4

Certificates

Entry Level Welding

This Entry Level Welding certificate is designed to prepare students for work in a variety of settings using welding and fabrication. Students learn the hazards of welding to health and safety, as well as essential information that they apply to shop safety procedures. Students become familiar with blueprint reading, and acquire the skills needed to set up equipment, make repairs, and use oxyacetylene and plasma arc cutting processes in structural welding. Additionally, students learn welding in all positions and on various joint configurations using the gas

tungsten arc welding (GTAW) process and the gas metal arc welding (GMAW) process.

Program Learning Outcomes

Upon completion of the Entry Level Welding certificate program, students should be able to:

- Follow shop safety procedures
- Read and interpret an industry standard blueprint
- Utilize the oxyacetylene and plasma arc cutting processes
- Produce a variety of welds in all positions and joint configurations using Gas Tungsten Arc Welding (GTAW) and Gas Metal Arc Welding (GMAW)

MAT 1140	Career Math	3
WEL 1000	Safety for Welders	1
WEL 1006	Blueprint Reading for Welders & Fitters	4
WEL 1013	Oxyfuel & Plasma Cutting	2
WEL 1014	Oxyacetylene Welding	2
WEL 1021	Structural Welding I	3
WEL 1022	Structural Welding II	3
WEL 1024	Gas Tungsten Arc Welding I	4
WEL 1025	Introduction to Gas Metal Arc Welding	4
Total Credit Hours		**26**

Gas Metal Arc Welding (GMAW)

This Gas Metal Arc Welding (GMAW) certificate is designed to prepare students for work in a variety of settings using welding and fabrication. Students learn welding in all positions and on various joint configurations using the GMAW (mig) welding process on carbon steel, stainless steel, and aluminum. Student also become familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry. Additionally, students learn welding in all positions on carbon steel plate with the GMAW process.

Program Learning Outcomes

Upon completion of the Gas Metal Arc Welding (GMAW) certificate program, students should be able to:

- Identify and adjust welding parameters based on metal thickness
- Produce a single V-groove Gas Metal Arc Weld (GMAW) in various positions on carbon steel in accordance with AWS D1.1 structural steel code

WEL 1025	Introduction to Gas Metal Arc Welding	4
WEL 2025	Advanced Gas Metal Arc Welding	4
Total Credit Hours		**8**

Gas Tungsten Arc Welding (GTAW)

This Gas Tungsten Arc Welding (GTAW) certificate is designed to prepare students for work in a variety of settings using welding and fabrication. Students learn welding in all positions and on various joint configurations using the GTAW (tig) welding process on carbon steel, stainless steel, and aluminum. Student also become familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry. Additionally, students learn welding in all positions on carbon steel, stainless steel, and aluminum plate and carbon steel pipe with the GTAW process.

Program Learning Outcomes

Upon completion of the Gas Tungsten Arc Welding (GTAW) certificate program, students should be able to:

- Identify and adjust welding parameters based on applicable metallurgy on varying joint configurations

- Produce fillet and groove Gas Tungsten Arc Weld (GTAW) I various positions on different metals

WEL 1024	Gas Tungsten Arc Welding I	4
WEL 2024	Gas Tungsten Arc Welding II	4
Total Credit Hours		**8**

Pipe Welding

This Pipe Welding certificate is designed to prepare students for work in a variety of settings using welding and fabrication. Students learn to perform safety inspections, minor repairs, adjust operating parameters, and operate SMAW, GMAW, and FCAW equipment in a variety of positions on plain carbon steel pipe joints. Students learn to evaluate and solve complex welding and fabrication problems and administer hands on training and supervision to other students during assigned fabrication and welding operations.

*Students must complete Entry Level Certificate prior to taking Pipe courses

Program Learning Outcomes

Upon completion of the Pipe Welding certificate program, students should be able to:

- Follow shop safety procedures and perform safety inspections
- Read and interpret an industry standard blueprint
- Utilize the oxyacetylene and plasma arc cutting processes
- Produce multi pass welds with Gas Tungsten Arc Welding (GTAW) and Shielded Metal Arc Welding (SMAW) equipment in various positions
- Adjust operating parameters of various electrodes on Shielded Metal Arc Welding (SMAW) equipment on carbon steel pipe joints

*Entry Level Certificate		26
WEL 2030	Pipe Welding I	4
WEL 2031	Pipe Welding II	4
Total Credit Hours		**34**

Shielded Metal Arc Welding (SMAW)

This Shielded Metal Arc Welding (SMAW) certificate is designed to prepare students for work in a variety of settings using welding and fabrication. Students learn about theory and practice in oxyacetylene processes with an emphasis toward AWS welder qualification with mild steel electrode E-7018 welding in the horizontal and vertical position. The goal is to take the AWS welder with mild steel electrode E-7018 qualification test in the 2G, 3GU, and 4G position.

Program Learning Outcomes

Upon completion of the Shielded Metal Arc Welding certificate program, students should be able to:

- Identify and adjust welding parameters based on varying positions
- Produce a single V-groove Shielded Metal Arc (SMAW) weld in various positions on carbon steel in accordance with AWS D1.1 structural steel code

WEL 1021	Structural Welding I	3
WEL 1022	Structural Welding II	3
Total Credit Hours		**6**

Additional information available on the Welding Department website at www.pikespeak.edu/welding.

Zoo Keeping Technology

Associate of Applied Science Degree

Recommended basic skills courses are
- College Readiness in English
- College Readiness for Quantitative Literacy

This program is designed to prepare students to be zoo keeping technicians and animal care professionals. Classes include training in science foundations, animal husbandry, career development, horticulture, exhibit design and veterinary zoo keeping giving the students the background for a career in the animal care professions.

New students must satisfactorily pass a Criminal Background Investigation (CBI) prior to first internship. Failure to pass may jeopardize participation in any internship. CBI tests are at student expense.

Students should realize that a degree from PPSC will not guarantee a position with a zoo. Many zoos have requirements other than education for employment. Requirements for a zoo keeping job may include the following:

- Ability to remain on feet for long periods of time.
- Working in a variety of weather conditions, weekends, and holidays.
- Work in small, confined spaces.
- Perform a variety of physical tasks that include climbing, bending, stooping, kneeling, twisting, reaching, and crawling.
- Physical strength, including the ability to frequently move fifty (50) pounds.
- Ability to wear Personal Protective Equipment that may include rubber/latex gloves, steel-toed boots/shoes, face shields, eye goggles, and dust masks.
- No allergy related to plants or animals that would impede work.
- No impairment of sight, smell, hearing, touch balance, and ability of movement that might interfere with ability to work.

Students should consult with a program faculty advisor prior to enrolling in this program.

Students not meeting a course prerequisite must have instructor permission to enroll.

Program Learning Outcomes

Upon completion of the Zoo Keeping Technology degree program, students should be able to:

- Determine the science behind animal care, including basic biology and natural history of diverse taxa, based upon their taxonomical organization
- Design a public interpretation program based on research of an assigned animal regarding natural history, biology, captive housing, and conservation
- Evaluate animal welfare through daily observations and husbandry care
- Select and apply proper tool use for assigned task
- Demonstrate oral, non-verbal, and written communication skills

General Education Courses

BIO 1003	Principles of Animal Biology: SC2	3
COM 1150	Public Speaking	3
or		
COM 2140	Natural Resource Interpretation & Communication	(3)
ENG 1031	Technical Writing I: CO1	3
or		
ENG 1021	English Composition I: CO1	(3)
ENV 1111	Environmental Science w/Lab: SC1	4
MAT 1120	Math for Clinical Calculations	3
or		
MAT 1140	Career Math	(3)
		16

Additional Required Courses

ZOO 1010	Introduction to Captive Animal Management	2
ZOO 1020	Biodiversity & Conservation	3
ZOO 1030	Animal Behavior	3
ZOO 1040	Introduction to Animal Training	2
ZOO 1080	Zoo Keeping Internship I	5
ZOO 1081	Zoo Keeping Internship II	5
ZOO 1320	Veterinary Zookeeping	4
ZOO 1410	Invertebrate Zoology	4
ZOO 1510	Fish Husbandry & Aquaria Management	4
ZOO 1610	Herpetology	4
ZOO 1710	Bird Husbandry	4
ZOO 1810	Mammal Husbandry	4
Electives	Choose five (5) hours from list below	5
		49

Total Credit Hours	**65**

Electives

HWE 1001	Community First Aid & CPR	1
OUT 1385	Scuba Diving	1
OUT 2002	Open Water Diver	1
ZOO 1110	Advanced Exhibitory Techniques	2
ZOO 1111	Adventures in Zoo Design	2
ZOO 1310	Zoonotic Preventative Medicine	3
ZOO 1210	Exhibit & Horticulture Design	4
ZOO 1811	Ungulates-The Hoofed Mammals	2
ZOO 1812	Pachyderms: Hippos, Rhinos & Elephants	2
ZOO 1813	Primates: Prosimians & Monkeys	3
ZOO 1814	Apes	2
ZOO 1815	Wild Cats-Conservation & Management	2
ZOO 1816	Wild Canid Conservation & Management	2
ZOO 1817	Bats: An Introduction	2
ZOO 2040	Animal Training in Action	2
ZOO 2080	Zoo Keeping Internship III	5
ZOO 2410	Aquatic & Terrestrial Invertebrate Husbandry	4
ZOO 2610	Reptile & Amphibian Husbandry	4

Certificates

Core Animal Care

The Core Animal Care certificate is designed to enhance the Zoo Keeping AAS degree or introduce students to animal careers other than Zoo Keeping. Students learn about the physical and mental demands in the field of zoo keeping, bird biology and husbandry, mammalian biology and husbandry, and fish and aquatic invertebrate biology in relation to captive care and management.

Program Learning Outcomes

Upon completion of the Core Animal Care certificate program, students should be able to:

- Design husbandry, conservation, and management programs for mammalian and avian species

- Construct and enrich animal enclosures according to individual animal needs
- Discuss the environmental, political, economic, and sociological issues linked to loss of biodiversity on the planet
- Develop and implement training programs for captive animals

ZOO 1010	Introduction to Captive Animal Management	2
ZOO 1110	Advanced Exhibitory Techniques	2
ZOO 1210	Exhibit & Horticulture Design for Zoo Exhibits	4
ZOO 1320	Veterinary Zookeeping	4
ZOO 1410	Invertebrate Zoology	4
ZOO 1510	Fish Husbandry & Aquaria Management	4
ZOO 1610	Herpetology	4
ZOO 2410	Aquatic & Terrestrial Invertebrate Husbandry	4
ZOO 2610	Reptile & Amphibian Husbandry	4
		32

Additional information available on the Zoo Keeping Technology Department website at www.pikespeak.edu/programs/zoo-keeping-technology.

Associate of Engineering Science Degree (AES)

The Associate of Engineering Science (AES) degree is designed for students who want an emphasis in engineering, mathematics, physical sciences, and computer science, and who intend to transfer to a four-year engineering program.

Mechanical Engineering

Associate of Engineering Science Degree

Recommended basic skills courses are
- College Readiness in English
- MAT 1340 and MAT 1440

The Associate of Engineering Science in Mechanical Engineering is the pathway for students interested in earning a bachelor's degree in mechanical engineering. To earn the AES in mechanical engineering, students must complete the following course requirements for a total of 64 semester credit hours. Because the requirements of various four-year receiving institutions vary significantly, it is highly recommended that students consult with an advisor and engineering faculty to ensure courses align with the specific requirements of the receiving institution.

Three courses in the Mechanical Engineering curriculum require prerequisite courses or knowledge: CHE 1111 requires completion of CHE 1011 or one year of high school chemistry; CSC 1060 requires completion of CSC 1019; CAD 2455 requires completion of CAD 1101. Students should talk with an advisor about completing these prerequisite courses or other placement options.

Program Learning Outcomes

Upon completion of the mechanical engineering degree program, students should be able to:

- Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, verbal descriptions)
- Convert information into and between various mathematical forms
- Interpret data using multiple mathematical forms
- Select appropriate methods or theoretical frameworks to solve problems
- Examine engineering scenarios and data to identify patterns, differences, similarities, limitations, or implications
- Develop a conclusion based on findings
- Apply appropriate engineering techniques, skills, models, and tools to analyze and solve problems
- Analyze the professional and ethical impacts of engineering solutions within economic, environmental, and social contexts

Written Communication
Three (3) credit hours. Any GT-CO1 or GT-CO2 course.

ENG 1021	English Composition I: CO1	3
ENG 1022	English Composition II: CO2	3
ENG 1031	Technical Writing I: CO1	3

Mathematics
Ten (10) credit hours

MAT 2410	Calculus I: MA1	5
MAT 2420	Calculus II: MA1	5

Arts and Humanities
Three (3) credit hours. Any GT-AH course.

PHI 2018	Environmental Ethics: AH3	3
or		
GT Pathways Arts and Humanities course (AH1, AH2, AH3, AH4)		(3)

Social and Behavioral Sciences
Three (3) credit hours. Any GT-SS course.

ECO 2001	Principles of Macroeconomics: SS1	3
or		
ECO 2002	Principles of Microeconomics: SS1	(3)
or		
GT - One GT Pathways Social and Behavioral Sciences course (SS1, SS2, SS3)		(3)

Natural and Physical Sciences
Fifteen (15) credit hours

CHE 1111	General College Chemistry I w/Lab: SC1	5
PHY 2111	Physics: Calculus-Based I w/Lab: SC1	5
PHY 2112	Physics: Calculus-Based II w/Lab: SC1	5

Additional Required Courses
Twenty-seven to thirty (27-30) credit hours.
Note: If these credits are not required for the major at a receiving Colorado four-year institution, they will be applied to the bachelor's degree as elective credit towards graduation. However, additional credits over 64 may not transfer to all universities. Please check with the receiving institution to determine in which way these courses will be applied.

MAT 2430	Calculus III: MA1	4
or		
MAT 2431	Calculus III with Engineering Applications: MA1	(5)
MAT 2562	Differential Equations with Linear Algebra	4
or		
MAT 2540 and	Linear Algebra	(3)
MAT 2560	Differential Equations: MA1	(3)
EGG 1020	Engineering Methodologies	3
or		
EGG 1040	Engineering Projects	(3)
or		
EGT 1110	Intro Design/Engineering Apps	(3)
EGG 1060	Engineering Computing	4
or		
CSC 1060	Computer Science I	3
EGG 2011	Engineering Mechanics I (Statics)	3
EGG 2012	Engineering Mechanics II (Dynamics)	3
EGG 2020	Thermodynamics	3
or		
CAD 2455	SolidWorks/Mechanical	(3)
EGG 2030	Mechanics of Solids	3

Electives
Three (3) credit hours
Note: Electives listed below have been articulated to the University of Colorado Boulder, University of Colorado, Colorado Springs, and University of Colorado Denver. Please check with other receiving institutions to determine their specific requirements.

CAD 2455	SolidWorks/Mechanical	3
CSC 1061	Computer Science II	4
EGG 2020	Thermodynamics	3
PHY 2113	Physics III: Calculus-Based Modern Physics	3
Total Credit Hours		64

Bachelor of Applied Science Course of Study

Advanced Paramedic Practitioner

The Advanced Paramedic Practitioner BAS is designed to prepare currently certified paramedic for the field of critical care and community paramedicine. This degree path also serves as a pathway to licensure in Colorado. Education provided within the degree will fill the void of current psychiatric education in Emergency Medical System to meet a need within the healthcare system. The degree focuses on interpersonal and interdisciplinary relationships and self-reflection for continued personal growth.

Students must complete a complete an Associates of Applied Science degree with a minimum of 60 credits in Emergency Medical Services, Paramedic before applying to the BAS degree

Program Learning Outcomes

Upon completion of the Advanced Paramedic Practitioner degree program, students should be able to:

- Employ cognitive and technical skills to evaluate and synthesize complex ideas, concepts, and theories in a paramedic practitioner environment
- Utilize communication, collaboration, and clinical reasoning skills in professional paramedic practice
- Reflect critically on medical knowledge, research principles and methods to demonstrate mastery as a paramedic practitioner
- Use high level self-management skills to operate in complex and dynamic paramedic practitioner setting

General Education Requirements

BIO 2116	Human Pathophysiology	4
MAT 1260	Introduction to Statistics: MA1	3
SOC 2031	The Sociology of Deviant Behavior: SS3	3
Total Credit Hours		**10**

Upper Division BAS Course Requirements

EMS 3010	Clinical Assessment in the Behavior Setting	3
EMS 3011	Motivational Interviewing & De-escalation Techniques	3
EMS 3012	Trauma Informed Care & Assessment	3
EMS 3030	Community Advocacy & Outreach	3
EMS 3031	Community Assessment	3
EMS 4025	Fundamentals of Advanced Paramedic Practice	4
EMS 4030	Care & Prevention Development Strategies	3
EMS 4033	Advanced Paramedic Medical Care	3
EMS 4035	Advanced Paramedic Trauma Care	3
EMS 4089	Capstone	6
ESA 3000	Leadership for Emergency Executives	3
ESA 3005	Crisis Communication & Public Relations	3
ESA 3015	Elements of Emergency Service Administration	3
ESA 3025	Public Policy & Practical Applications in Emergency Services	3
ESA 4005	Public Health in Complex Emergencies	4
ESA 4020	Research & Design for Emergency Administration	3
		51
Total Credit Hours		**61**
Total EMS Paramedic AAS Degree Credit Hours		**62**
Total BAS Degree Credit Hours		**123**

Emergency Service Administration

The BAS Emergency Service Administration degree offers a comprehensive educational program to prepare a new generation of leaders in the field of emergency services in both governmental agencies and private sectors. Students will obtain a well-rounded learning experience and training related to proactive strategic planning for disaster prevention and reduction. The curriculum blends theoretical perspectives with professional practice necessary to enhance resiliency for communities and leverage capabilities and resources to deal with emergency situations. Students will learn how to tackle crisis requiring multi-agency collaboration and coordination activities. Additionally, the curriculum provides the foundation and skills for professionals in emergency services to advance into a leadership position and practice a proactive leadership in unpredictable and catastrophic situations to minimize risk to responders and the public.

Prior to applying for the BAS ESA degree, students must complete an associate degree with a minimum of 60 credits in one of the following degrees or a different associate degree combined with showing evidence of a minimum of 4000 hours of related field experience.

> Criminal Justice
> Emergency Management & Planning
> Emergency Medical Services
> Fire Science Technology
> Fire Science Wildland
> Public Security Management

Program Learning Outcomes

Upon completion of the Emergency Service Administration degree program, students should be able to:

- Apply optimal use of systems and critical thinking in an emergency situation
- Apply the emergency management framework, principles, and body of knowledge to a normal and crisis situations
- Analyze the geographic configurations of hazards, vulnerabilities, and risks in relation to their impact on sociocultural norms
- Assess evolving technologies, their relevant application to practice, and timely adoption
- Construct impact analysis for public policy
- Appraise optimal emergency management and leadership characteristics in varying emergency situations

General Education Requirements

BUS 2017	Business Communications & Report Writing	3
ENV 1010	Natural Disasters: SC2	3
MAT 1260	Introduction to Statistics: MA1	3
PSC 1025	American State & Local Government: SS1	3
SOC 2018	Sociology of Diversity: SS3	3
Total Credit Hours		**15**

Upper Division BAS Course Requirements

ESA 3000	Leadership for Emergency Executives	3
ESA 3005	Crisis Communication & Public Relations	3
ESA 3010	Emergency Public Information & Media Training	3
ESA 3015	Elements of Emergency Service Administration	3
ESA 3020	Designing Safer Communities: Pre-incident Planning & Risk Analysis	4
ESA 3025	Public Policy & Practical Applications in Emergency Services	3

ESA 3030	Budget & Planning Fundamentals for Emergency Administrators	3
ESA 4000	Personnel Management in Emergency Service Agencies	3
ESA 4005	Public Health in Complex Emergencies	4
ESA 4010	Terrorism Threat & Risk Analysis	3
ESA 4015	Tactical Planning, Response & Recovery	4
ESA 4020	Research & Design for Emergency Administration	3
ESA 4089	Emergency Service Capstone	6
		45

Total Credit Hours	**60**
Total Associate Degree Credit Hours	**60**
Total BAS Degree Credit Hours	**120**

Additional information available on the Emergency Service Administration Department website at www.pikespeak.edu/esa.

Bachelor of Science in Nursing Course of Study

Registered Nurse

The RN-BSN program is designed for Registered Nurses who wish to earn the baccalaureate nursing degree or for current nursing students (dual enrollment) who are enrolled and in good standing in the Nursing AAS program who wish to earn the baccalaureate nursing degree. Students will examine the role of baccalaureate nursing that embraces excellence, caring, legal and ethical practice, civility, and lifelong learning. The curriculum prepares students to advance in their nursing career by gaining knowledge of current trends in the profession, nursing research, leadership, and healthcare informatics. Students will critique nursing research and learn to disseminate best practice guidelines in the clinical setting. The student's scope of practice will expand beyond individual patient care to the professional nurse's role in health promotion, prevention, and optimal wellness of communities. Students will be challenged to develop clinical reasoning and leadership skills beyond the scope of the ADN level and are prepared for career advancement within the nursing profession.

Students must apply to the RN-BSN program with a completed Associates Degree or Diploma in Nursing and have a current RN license in good standing. Students who are dual enrolled can start BSN classes through an online format once they have completed the first semester of the AND program. The program has two courses (NUR 4009 & NUR 4010) that require the student to hold an RN license for a practicum experience. Each 3000 and 4000 level nursing course must be completed with a grade of C or better or the course must be repeated to progress in the program.

The RN-BSN program will recognize and transfer in a total of 71.5 block credit hours for the ADN Degree/Diploma and RN license.

Program Learning Outcomes

Upon completion of the RN-BSN degree program, students should be able to:

Quality care
- Interpret research to promote best practice and use data to monitor the outcomes of care processes. Propose an evaluation process to continuously improve the quality and safety of health care systems and deliver quality care to individuals and diverse populations.

Professionalism
- Formulate a plan that demonstrates an enhanced commitment to professionalism embracing excellence, caring, legal and ethical practice, civility, accountability, and professional development.

Communication
- Evaluate effective communication and collaboration with colleagues, inter-professional groups, and members of the community to promote health, safety, and well-being across the lifespan and across the continuum of the healthcare environment.

Leadership
- Evaluate the contribution of leadership, quality improvement principles, and impact of organizational systems in transforming, managing, and coordinating safe, quality, and cost-effective person-centered care.

Critical thinking/clinical reasoning
- Integrate a systematic process of critical inquiry with nursing, natural and behavioral sciences, arts, and humanities to make evidence-based practice decisions to improve the nursing care of individuals, families, populations, and communities.

General Education Requirements

ENG 1022	English Composition II: CO2	3
MAT 1260	Introduction to Statistics: MA1	3
One (1) GT Pathways History course (HI1)		3
Two (2) GT Pathways Arts and Humanities courses (AH1, AH2, AH3, AH4)		6
One (1) GT Pathways Social and Behavioral Sciences course (SS1, SS2, SS3)		3
Total Credit Hours		18

Upper Division BSN Course Requirements

NUR 3001	Integration into Baccalaureate Nursing Practice	3
NUR 3002	Trends in Nursing Practice	3
NUR 3003	Nursing Research / Evidence Based Practice	3
NUR 4008	Legal & Ethical Issues Related to Professional Nursing Practice	3
NUR 4009	Leadership in the Nursing Profession	3.5
NUR 4010	Community Health Nursing / Practicum	6
NUR 4011	Senior Seminar	3
Total Credit Hours		24.5

Upper Division BSN Elective Requirements
Students must choose six (6) credits from the following list

NUR 3004	Informatics / Healthcare Technology	3
NUR 3005	Emergency Preparedness	3
NUR 3006	Gerontology Nursing	3
NUR 3007	Behavioral Health	3
Total RN-BSN Course Credits		

General Education Credit Hours	18
Credit Hours in the RN-BSN Curriculum	30.5
Associate Degree/Diploma & RN License Block Credit Hours	71.5
Total Credit Hours	**120**

Other Programs and Courses of Study

Para-Professional Education

Associate of Arts or Science Course of Study/ Associate of General Studies Course of Study

Para-professional educators may complete an Associate degree plan of study or pass a school district designated test. Associate degree plans of study in the para-educator related field include the AA Early Childhood Education, AAS Early Childhood Education, AA Elementary Education, AS or AA Psychology, and AA Sociology. Para-professional educators seeking a degree at PPSC should schedule advising with an EDU or ECE faculty advisor, by calling 719-502-3300.

Additional information available on the Education Department website at www.pikespeak.edu/edu.

Pre-Engineering

Associate of Science Transfer Track

The transfer track offers students the requisite fundamental engineering sciences background and the strong mathematical foundation necessary for pursuing upper-level classes in engineering. Because of the varied differences of freshman and sophomore level courses needed for specific engineering programs, it is strongly recommended that students plan a program of study with pre-engineering advisors prior to or during the first term of study. The transfer track, while not necessarily resulting in an AS degree, does offer the equivalent of the course work of the first two years of college engineering studies in preparation for transfer to an engineering school. For additional information, please call 719-502-3600.

Secondary Education Teacher Preparation

Associate of Arts or Science Course of Study

Secondary Education Teacher Preparation allows students to complete a transferable associate of arts or science degree preparing them for transfer to a four-year college or university in Colorado where they can complete their bachelor's degree and teaching credential in two additional years. Students identify a major and transfer institution prior to enrolling for courses and must meet with their faculty advisor before registering for classes to insure transferability of courses to their chosen institution/major. Areas of Certification in Colorado are Art, Communication, Drama, English Language Arts, Health, Mathematics, Music, Physical Education, Science, Social Studies, and World Language. For additional information, please contact PPSC's Advising and Testing department.

Additional information available on the Education Department website at www.pikespeak.edu/programs/education/index.php.

COURSE DESCRIPTIONS

Course Numbering System

Each course has a letter and a numeric code. The letters are an abbreviation for the subject. For instance, MAT indicates a mathematics course and ENG an English course.

Courses numbered 1000-1999 are usually considered freshman level. Sophomore courses are generally numbered between 2000 and 2999.

Course numbers and descriptions are subject to change.

Developmental Courses

Developmental courses are numbered from 0001 to 0099. These are courses that teach basic skills often required to complete other college work. Students may be referred to these courses if their placement test scores do not meet college minimum standards. Though developmental courses may be required to enter a program or enroll in other courses, they do not count toward a degree or certificate.

Independent Study

Independent study classes allow students to develop specialized course goals working independently with an instructor. In this type of class, students meet in person with an instructor and agree to an appropriate course of study to conduct an independent investigation of a problem. One credit hour is awarded for each two hours of contracted special study per week per semester. Enrollment requires approval of the appropriate division director and the chief instructional officer.

Off Campus Courses

Courses that originate at PPSC campuses and include travel to off-campus locations are considered by the institution to be resident courses.

Selected Topics

These courses are available in all disciplines under the 1075, 1077, 1076, 2075, 2076, 2077 series. Developmental courses are 0075, 0076, 0077. These courses meet temporary or special requirements for offerings not in the curriculum and explore the viability of adding the proposed course to the curriculum.

State-Guaranteed Curriculum

The State – Guaranteed Curriculum is a package of courses which will transfer to all public colleges and universities in Colorado (except School of Mines). The core package is part of the associate of arts and associate of science degrees. When transferred as a package, core courses will satisfy the lower division general education requirements for Bachelor of Arts and Bachelor of Sciences degrees provided they are completed with a grade of C or better.

Work Experience Courses

These courses are designed to improve employability and to expand the laboratory or shop capabilities of the institution through the use of community-based facilities. All work (field) experience courses include the following:

- an instructor credentialed in the program area to supervise the off-campus instruction
- activities designed by the instructor
- student attendance at a minimum of one class session per week with the instructor
- a training plan which includes assignments required for completion of the course
- grading according to the established college grading policy
- the same types of assignments and preparation as for on-campus courses.

Master Course Crosswalk

The Colorado Community College System has determined that courses will change to a 4-digit system effective Summer 2022. The following list is the crosswalk from the 3-digit to 4-digit course numbers. The courses will transition to transcripts, DegreeWorks, etc. Courses marked with an asterisk [*] are not currently offered at PPSC.

Accounting
ACC 101	ACC 1001
ACC 115	ACC 1015
ACC 121	ACC 1021
ACC 122	ACC 1022
ACC 125	ACC 1025
ACC 131	ACC 1031
ACC 132	ACC 1032
ACC 133	ACC 1033
ACC 135	ACC 1035
ACC 211	ACC 2011
ACC 212	ACC 2012
ACC 216	ACC 2016
ACC 226	ACC 2026
ACC 231	ACC 2031
ACC 287	ACC 2087

Advancing Academic Achievement
AAA 101	AAA 1001
AAA 109	AAA 1009

Agriculture
AGR 260*	AGR 2106*

Agriculture Crops & Soils
AGY 240	AGY 2140

Agriculture Economics
AGE 102*	AGE 1102*

American Sign Language
ASL 121	ASL 1121
ASL 122	ASL 1122
ASL 123	ASL 1123
ASL 125	ASL 1125
ASL 135	ASL 1135
ASL 215	ASL 2215
ASL 221	ASL 2221
ASL 222	ASL 2222

Anthropology
ANT 101	ANT 1001
ANT 102*	ANT 1002*
ANT 107	ANT 1003
ANT 108*	ANT 1208*
ANT 111	ANT 1005
ANT 207	ANT 2317
ANT 212	ANT 2315
ANT 215	ANT 2115
ANT 218	ANT 2218
ANT 221	ANT 1101
ANT 222	ANT 2101
ANT 225	ANT 2125
ANT 250	ANT 2550
ANT 255	ANT 2545
ANT 260	ANT 2130

Arabic
ARA 111	ARA 1011
ARA 112	ARA 1012
ARA 211	ARA 2011
ARA 212	ARA 2012

Architectural Engineer/Construction Management
AEC 102	AEC 1231
AEC 104	AEC 1220
AEC 107	AEC 1200
AEC 121	AEC 1520
AEC 122	AEC 1600
AEC 123	AEC 1232
AEC 125	AEC 1110
AEC 216	AEC 2610
AEC 218	AEC 2300
AEC 225	AEC 2230
AEC 226	AEC 2630
AEC 232	AEC 2650
AEC 233	AEC 2660
AEC 236	AEC 2700
AEC 255	AEC 2930
AEC 280	AEC 2080

Art
ART 110	ART 1110
ART 111	ART 1111
ART 112	ART 1112
ART 113	ART 1115
ART 115	ART 1805
ART 116	ART 1806
ART 118	ART 1803
ART 121	ART 1201
ART 122	ART 1205
ART 124	ART 1307
ART 127	ART 1204
ART 128	ART 1203
ART 129	ART 1501
ART 131	ART 1002
ART 132	ART 1003
ART 133	ART 1604
ART 138	ART 1402
ART 139	ART 1401
ART 142	ART 2407
ART 144	ART 2405
ART 149	ART 1405
ART 150	ART 1005
ART 151	ART 1301
ART 161	ART 1703
ART 162	ART 1701
ART 166	ART 1705
ART 207	ART 1113
ART 208	ART 1117
ART 209	ART 2906
ART 210	ART 2902

ART 211	ART 2901
ART 215	ART 2805
ART 216	ART 2806
ART 221	ART 1202
ART 222	ART 2201
ART 223	ART 2202
ART 224	ART 1308
ART 225	ART 2307
ART 226	ART 2308
ART 228	ART 2203
ART 229	ART 1502
ART 232	ART 2003
ART 233	ART 1605
ART 234	ART 2603
ART 235	ART 2604
ART 238	ART 2402
ART 239	ART 2401
ART 242	ART 2410
ART 249	ART 2049
ART 250	ART 1006
ART 251	ART 1302
ART 252	ART 2301
ART 253	ART 2302
ART 261	ART 1704
ART 262	ART 2703
ART 263	ART 2704
ART 264	ART 2702
ART 280	ART 2080
ART 289	ART 2089

Astronomy

AST 101	AST 1110
AST 102	AST 1120
AST 110	AST 1003
AST 155	AST 1140

Auto Motorsports Technology

AUT 105	AUT 1005
AUT 108	AUT 1008
AUT 109	AUT 1009
AUT 110	AUT 1010
AUT 116	AUT 1016
AUT 118	AUT 1018
AUT 119	AUT 1019
AUT 125	AUT 1025
AUT 126	AUT 1026
AUT 127	AUT 1027
AUT 128	AUT 1028
AUT 136	AUT 1036
AUT 137	AUT 1037
AUT 205	AUT 2005
AUT 206	AUT 2006

Automotive Collision Technology

ACT 101	ACT 1001
ACT 111	ACT 1011
ACT 121	ACT 1021
ACT 122	ACT 1022
ACT 123	ACT 1023
ACT 124	ACT 1024
ACT 131	ACT 1031
ACT 132	ACT 1032
ACT 142	ACT 1042
ACT 143	ACT 1043
ACT 144	ACT 1044
ACT 151	ACT 1051

ACT 160	ACT 1060
ACT 164	ACT 1064
ACT 165	ACT 1065
ACT 166	ACT 1066
ACT 167	ACT 1067
ACT 170	ACT 1070
ACT 171	ACT 1071
ACT 172	ACT 1072
ACT 180	ACT 1080
ACT 181	ACT 1081
ACT 205	ACT 2005
ACT 207	ACT 2007
ACT 211	ACT 2011
ACT 215	ACT 2015
ACT 221	ACT 2021
ACT 226	ACT 2026
ACT 231	ACT 2031
ACT 232	ACT 2032
ACT 241	ACT 2041
ACT 242	ACT 2042
ACT 243	ACT 2043
ACT 244	ACT 2044
ACT 251	ACT 2051

Automotive Service Technology

ASE 102	ASE 1002
ASE 110	ASE 1010
ASE 111	ASE 1011
ASE 120	ASE 1020
ASE 123	ASE 1023
ASE 130	ASE 1030
ASE 132	ASE 1032
ASE 134	ASE 1034
ASE 140	ASE 1040
ASE 141	ASE 1041
ASE 150	ASE 1050
ASE 151	ASE 1051
ASE 152	ASE 1052
ASE 160	ASE 1060
ASE 161	ASE 1061
ASE 201	ASE 2001
ASE 210	ASE 2010
ASE 221	ASE 2021
ASE 231	ASE 2031
ASE 233	ASE 2033
ASE 235	ASE 2035
ASE 240	ASE 2040
ASE 250	ASE 2050
ASE 251	ASE 2051
ASE 265	ASE 2065
ASE 282	ASE 2182

Biology

BIO 103	BIO 1003
BIO 104	BIO 1004
BIO 105	BIO 1005
BIO 106	BIO 1006
BIO 111	BIO 1111
BIO 112	BIO 1112
BIO 116*	BIO 1016*
BIO 148	BIO 1048
BIO 150	BIO 1050
BIO 201	BIO 2101
BIO 202	BIO 2102
BIO 203	BIO 2103

BIO 204	BIO 2104
BIO 208*	BIO 2108*
BIO 216	BIO 2116
BIO 221	BIO 2121
BIO 224	BIO 2124

Business

BUS 115	BUS 1015
BUS 181	BUS 1081
BUS 182	BUS 1082
BUS 203	BUS 2003
BUS 216	BUS 2016
BUS 217	BUS 2017
BUS 226	BUS 2026
BUS 281	BUS 2081
BUS 282	BUS 2082
BUS 287	BUS 2087
BUS 289	BUS 2089

Business Technology

BTE 100	BTE 1000
BTE 102	BTE 1002
BTE 108	BTE 1008
BTE 111	BTE 1011
BTE 166	BTE 1066
BTE 187	BTE 1087

Carpentry

CAR 101	CAR 1001
CAR 102	CAR 1002
CAR 103	CAR 1003
CAR 104	CAR 1004
CAR 105	CAR 1005
CAR 115	CAR 1015
CAR 123	CAR 1023
CAR 125	CAR 1025
CAR 130	CAR 1030
CAR 134	CAR 1034
CAR 135	CAR 1035
CAR 140	CAR 1040
CAR 146	CAR 1046
CAR 150	CAR 1050
CAR 160	CAR 1060
CAR 280	CAR 2080

Chemistry

CHE 101	CHE 1011
CHE 102	CHE 1012
CHE 105	CHE 1005
CHE 111	CHE 1111
CHE 112	CHE 1112
CHE 211	CHE 2111
CHE 212	CHE 2112

Chinese

CHI 111	CHI 1011
CHI 112	CHI 1012
CHI 211	CHI 2011

College Composition & Reading

CCR 094	ENG 0094

Communication

COM 115	COM 1150
COM 125	COM 1250
COM 130	COM 1300
COM 205	COM 2005
COM 214*	COM 2140
COM 215	COM 2270
COM 216	COM 2160
COM 217	COM 2220
COM 220	COM 2300
COM 225	COM 2250
COM 230	COM 2400
COM 260	COM 2060
COM 263	COM 2063
COM 269	COM 2069

Computer Aided Drafting

CAD 100	CAD 1100
CAD 101	CAD 1101
CAD 102	CAD 1102
CAD 104	CAD 1104
CAD 105	CAD 1105
CAD 115	CAD 1110
CAD 153	CAD 2458
CAD 215	CAD 2205
CAD 219	CAD 2540
CAD 224	CAD 2220
CAD 227	CAD 2221
CAD 230	CAD 2227
CAD 234	CAD 2228
CAD 240	CAD 2460
CAD 253	CAD 2459
CAD 255	CAD 2455
CAD 259	CAD 2456
CAD 262	CAD 2660
CAD 266	CAD 2661
CAD 269	CAD 2667
CAD 280	CAD 2080

Computer and Networking Technology

CNG 101	CNG 1001
CNG 102	CNG 1002
CNG 104	CNG 1004
CNG 108	CNG 1008
CNG 120	CNG 1020
CNG 121	CNG 1021
CNG 122	CNG 1022
CNG 132	CNG 1032
CNG 142	CNG 1042
CNG 202	CNG 2002
CNG 212	CNG 2012
CNG 242	CNG 2042
CNG 257	CNG 2057
CNG 258*	CNG 2058*
CNG 260	CNG 2060
CNG 261	CNG 2061
CNG 262	CNG 2062
CNG 263	CNG 2063
CNG 270	CNG 2070
CNG 280	CNG 2080

Computer Information Systems

CIS 102	CIS 1002
CIS 104	CIS 1004
CIS 110	CIS 1010
CIS 115	CIS 1015
CIS 118	CIS 1018
CIS 124	CIS 1024
CIS 128	CIS 1028
CIS 130	CIS 1030
CIS 135	CIS 1035
CIS 140	CIS 1040

CIS 145	CIS 1045
CIS 155	CIS 1055
CIS 165	CIS 1065
CIS 202	CIS 2002
CIS 223	CIS 2023
CIS 240	CIS 2040
CIS 243	CIS 2043
CIS 263	CIS 2063
CIS 267	CIS 2067
CIS 268	CIS 2068
CIS 280	CIS 2080
CIS 288	CIS 2088
CIS 289	CIS 2089

Computer Science

CSC 105	CSC 1005
CSC 119	CSC 1019
CSC 120	CSC 1020
CSC 126	CSC 1026
CSC 129	CSC 1029
CSC 160	CSC 1060
CSC 161	CSC 1061
CSC 217	CSC 2017
CSC 220	CSC 2020
CSC 225	CSC 2025
CSC 230	CSC 2030
CSC 233	CSC 2033
CSC 236	CSC 2036
CSC 240	CSC 2040
CSC 241	CSC 2041
CSC 245	CSC 2045
CSC 246	CSC 2046
CSC 267	CSC 2067
CSC 280	CSC 2080

Computer Web-Based

CWB 110	CWB 1010
CWB 130	CWB 1030
CWB 205	CWB 2005
CWB 221	CWB 2021

Construction Technology

CON 120	CON 1020
CON 128	CON 1028
CON 130	CON 1030
CON 138	CON 1038
CON 142	CON 1042
CON 145	CON 1045
CON 146	CON 1046
CON 147	CON 1047
CON 152	CON 1052
CON 153	CON 1053
CON 154	CON 1054
CON 155	CON 1055
CON 157	CON 1057
CON 158	CON 1058
CON 159	CON 1059
CON 160	CON 1060
CON 161	CON 1061
CON 162	CON 1062
CON 163	CON 1063
CON 164	CON 1064
CON 165	CON 1065
CON 166	CON 1066
CON 167	CON 1067
CON 168	CON 1068
CON 169	CON 1069
CON 207	CON 2007
CON 243	CON 2043
CON 245	CON 2045
CON 246	CON 2046
CON 280	CON 2080
CON 289	CON 2089

Counseling

CSL 250	CSL 2050
CSL 254	CSL 2054
CSL 265	CSL 2065

Criminal Justice

CRJ 110	CRJ 1010
CRJ 111	CRJ 1011
CRJ 112	CRJ 1012
CRJ 125	CRJ 1025
CRJ 127	CRJ 1027
CRJ 135	CRJ 1035
CRJ 145	CRJ 1045
CRJ 146	CRJ 1046
CRJ 205	CRJ 2005
CRJ 209	CRJ 2009
CRJ 210	CRJ 2010
CRJ 211	CRJ 2011
CRJ 212	CRJ 2012
CRJ 216	CRJ 2016
CRJ 220	CRJ 2020
CRJ 225	CRJ 2025
CRJ 230	CRJ 2030
CRJ 231	CRJ 2031
CRJ 235	CRJ 2035
CRJ 236	CRJ 2036
CRJ 245	CRJ 2045
CRJ 257	CRJ 2057
CRJ 268	CRJ 2068
CRJ 280	CRJ 2080

Culinary Arts

CUA 100	CUA 1000
CUA 101	CUA 1001
CUA 103	CUA 1003
CUA 105	CUA 1005
CUA 120	CUA 1020
CUA 125	CUA 1025
CUA 127	CUA 1027
CUA 129	CUA 1029
CUA 136	CUA 1036
CUA 138	CUA 1038
CUA 145	CUA 1045
CUA 150	CUA 1050
CUA 151	CUA 1051
CUA 152	CUA 1052
CUA 153	CUA 1053
CUA 154	CUA 1054
CUA 156	CUA 1056
CUA 157	CUA 1057
CUA 161	CUA 1061
CUA 190	CUA 1190
CUA 210	CUA 2010
CUA 233	CUA 2033
CUA 236	CUA 2036
CUA 245	CUA 2045
CUA 255	CUA 2055
CUA 256	CUA 2056

CUA 261	CUA 2061
CUA 262	CUA 2062
CUA 263	CUA 2063
CUA 264	CUA 2064
CUA 268	CUA 2068
CUA 269	CUA 2069
CUA 281	CUA 2081

Dance

DAN 105	DAN 1005
DAN 106	DAN 1006
DAN 111	DAN 1011
DAN 112	DAN 1012
DAN 113	DAN 1013
DAN 114	DAN 1014
DAN 117	DAN 1017
DAN 118	DAN 1018
DAN 121	DAN 1021
DAN 122	DAN 1022
DAN 123	DAN 1023
DAN 124	DAN 1024
DAN 125	DAN 1050
DAN 129	DAN 1029
DAN 130	DAN 1030
DAN 131	DAN 1031
DAN 132	DAN 1032
DAN 133	DAN 1033
DAN 134	DAN 1034
DAN 141	DAN 1041
DAN 142	DAN 1042
DAN 143	DAN 1043
DAN 144	DAN 1044
DAN 150	DAN 1025
DAN 151	DAN 1051
DAN 152	DAN 1052
DAN 161	DAN 1061
DAN 211	DAN 2011
DAN 212	DAN 2012
DAN 221	DAN 2021
DAN 222	DAN 2022
DAN 224	DAN 2024
DAN 225	DAN 2025
DAN 226	DAN 2026
DAN 227	DAN 2027
DAN 251	DAN 2051
DAN 253	DAN 2053
DAN 254	DAN 2054
DAN 255	DAN 2055

Dental Assisting

DEA 102	DEA 1021
DEA 104	DEA 1022
DEA 111	DEA 1035
DEA 120	DEA 1011
DEA 121	DEA 1012
DEA 122	DEA 1013
DEA 123	DEA 1023
DEA 124	DEA 1033
DEA 125	DEA 1024
DEA 126	DEA 1015
DEA 131	DEA 1034
DEA 132	DEA 1016
DEA 134	DEA 1031
DEA 140	DEA 1040
DEA 181	DEA 1081

DEA 182	DEA 1082
DEA 200	DEA 2011
DEA 205	DEA 2021

Diesel Power Mechanics

DPM 100	DPM 1000
DPM 101	DPM 1001
DPM 103	DPM 1003
DPM 105	DPM 1005
DPM 106	DPM 1006
DPM 107	DPM 1007
DPM 111	DPM 1011
DPM 112	DPM 1012
DPM 120	DPM 1020
DPM 121	DPM 1021
DPM 122	DPM 1022
DPM 123	DPM 1023
DPM 124	DPM 1024
DPM 125	DPM 1025
DPM 126	DPM 1026
DPM 140	DPM 1040
DPM 203	DPM 2003
DPM 205	DPM 2005
DPM 206	DPM 2006
DPM 207	DPM 2007
DPM 208	DPM 2008
DPM 210	DPM 2010
DPM 211	DPM 2011
DPM 212	DPM 2012
DPM 222	DPM 2022
DPM 223	DPM 2023
DPM 240	DPM 2040
DPM 264	DPM 2064
DPM 265	DPM 2065
DPM 280	DPM 2080

Dietetic Technology

DIT 121	DIT 1021
DIT 123	DIT 1023
DIT 180	DIT 1080
DIT 181	DIT 1081
DIT 182	DIT 1082
DIT 270	DIT 2070
DIT 271	DIT 2071
DIT 272	DIT 2072

Driving

DRV 100	DRV 1000
DRV 130	DRV 1030
DRV 132	DRV 1032
DRV 134	DRV 1034
DRV 136	DRV 1036
DRV 138	DRV 1038

Early Childhood Education

ECE 101	ECE 1011
ECE 102	ECE 1045
ECE 103	ECE 1031
ECE 111	ECE 1111
ECE 112	ECE 1125
ECE 125	ECE 2661
ECE 127	ECE 1271
ECE 191	ECE 1911
ECE 192	ECE 1925
ECE 205	ECE 2051
ECE 209	ECE 2061

ECE 220	ECE 2621
ECE 225	ECE 2631
ECE 226	ECE 2641
ECE 237	ECE 2371
ECE 238	ECE 2381
ECE 240	ECE 2401
ECE 241	ECE 2411
ECE 256	ECE 2101
ECE 260	ECE 2601
ECE 261	ECE 2615
ECE 279	ECE 2079
ECE 289	ECE 2089

Economics

ECO 101	ECO 1001
ECO 201	ECO 2001
ECO 202	ECO 2002
ECO 211*	ECO 2011*
ECO 245	ECO 2045

Education

EDU 188	EDU 1088
EDU 221	EDU 2211
EDU 222	EDU 2221
EDU 233	EDU 2331
EDU 234	EDU 2341
EDU 240	EDU 2401
EDU 250	EDU 2501
EDU 251	EDU 2511
EDU 260	EDU 2601
EDU 261	EDU 2611
EDU 263	EDU 2631
EDU 265	EDU 2651
EDU 266	EDU 2661
EDU 288	EDU 2088
EDU 289	EDU 2089

Electricity Industrial Commercial

EIC 130	EIC 1860
EIC 135	EIC 1861
EIC 217	EIC 2817
EIC 230	EIC 2330
EIC 245	EIC 2340
EIC 253	EIC 2751
EIC 259	EIC 2757

Electronics

ELT 101	ELT 1001
ELT 106	ELT 1206
ELT 107	ELT 1207
ELT 112	ELT 1212
ELT 134	ELT 1234
ELT 135	ELT 1235
ELT 146	ELT 1246
ELT 147	ELT 1247
ELT 148	ELT 1248
ELT 163	ELT 1002
ELT 165	ELT 1004
ELT 215	ELT 2215
ELT 248	ELT 2348
ELT 252	ELT 2252
ELT 255	ELT 2455
ELT 257	ELT 2357
ELT 258	ELT 2358
ELT 259	ELT 2359
ELT 261	ELT 2361

ELT 262	ELT 2362
ELT 266	ELT 2266
ELT 267	ELT 2367
ELT 268	ELT 2368
ELT 280	ELT 2080

Emergency Management & Planning

EMP 101	EMP 1001
EMP 105	EMP 1005
EMP 106	EMP 1006
EMP 107	EMP 1007
EMP 240	EMP 2040

Emergency Medical Services

EMS 115	EMS 1015
EMS 121	EMS 1021
EMS 122	EMS 1022
EMS 123	EMS 1023
EMS 124	EMS 1024
EMS 126	EMS 1026
EMS 127	EMS 1127
EMS 129	EMS 1129
EMS 131	EMS 1125
EMS 132	EMS 1132
EMS 133	EMS 1133
EMS 135	EMS 1135
EMS 138	EMS 1138
EMS 140	EMS 1140
EMS 162	EMS 1062
EMS 170	EMS 1070
EMS 171	EMS 1071
EMS 181	EMS 1081
EMS 225	EMS 2025
EMS 226	EMS 2026
EMS 227	EMS 2027
EMS 228	EMS 2028
EMS 229	EMS 2029
EMS 230	EMS 2030
EMS 231	EMS 2031
EMS 232	EMS 2032
EMS 233	EMS 2033
EMS 234	EMS 2034
EMS 235	EMS 2035
EMS 236	EMS 2036
EMS 237	EMS 2037
EMS 280	EMS 2080
EMS 281	EMS 2081
EMS 310	EMS 3010
EMS 311	EMS 3011
EMS 312	EMS 3012
EMS 330	EMS 3030
EMS 331	EMS 3031
EMS 425	EMS 4025
EMS 430	EMS 4030
EMS 433	EMS 4033
EMS 435	EMS 4035
EMS 489	EMS 4089

Emergency Service Admin

ESA 300	ESA 3000
ESA 305	ESA 3005
ESA 310	ESA 3010
ESA 315	ESA 3015
ESA 320	ESA 3020
ESA 325	ESA 3025
ESA 330	ESA 3030

ESA 400	ESA 4000
ESA 405	ESA 4005
ESA 410	ESA 4010
ESA 415	ESA 4015
ESA 420	ESA 4020
ESA 489	ESA 4089

Engineering

EGG 102	EGG 1020
EGG 140	EGG 1040
EGG 145	EGG 1060
EGG 206	EGG 2030
EGG 211	EGG 2011
EGG 212	EGG 2012
EGG 230	EGG 2020
EGG 243	EGG 2050

Engineering Graphics Tech

EGT 103	EGT 2303
EGT 140	EGT 1110
EGT 205	EGT 2305
EGT 210	EGT 2310

English

ENG 077	ENG 0077
ENG 115	ENG 1015
ENG 117	ENG 1017
ENG 118	ENG 1018
ENG 121	ENG 1021
ENG 122	ENG 1022
ENG 131	ENG 1031
ENG 132	ENG 1032
ENG 201	ENG 2001
ENG 205	ENG 2005
ENG 221	ENG 2021
ENG 222	ENG 2022
ENG 226	ENG 2026
ENG 227	ENG 2027
ENG 230	ENG 2030
ENG 231	ENG 2031
ENG 235	ENG 2035
ENG 280	ENG 2080

English as a Second Language

ESL 011	ESL 0011
ESL 012	ESL 0012
ESL 021	ESL 0021
ESL 022	ESL 0022
ESL 023	ESL 0023
ESL 031	ESL 0031
ESL 032	ESL 0032
ESL 041	ESL 0041
ESL 042	ESL 0042
ESL 043	ESL 0043
ESL 052	ESL 0052
ESL 053	ESL 0053
ESL 054	ESL 0054

Entrepreneurship

ENP 105	ENP 1005

Environmental Science

ENV 101	ENV 1111
ENV 110	ENV 1010

Ethnic Studies

ETH 224	ETH 2024

Finance

FIN 105	FIN 1050
FIN 106	FIN 1060
FIN 115	FIN 1015
FIN 201	FIN 2010
FIN 240	FIN 2040
FIN 287	FIN 2087

Fire Science Technology

FST 100	FST 1000
FST 101	FST 1001
FST 102	FST 1002
FST 103	FST 1003
FST 105	FST 1005
FST 106	FST 1006
FST 107	FST 1007
FST 109	FST 1009
FST 110	FST 1010
FST 126	FST 1026
FST 160	FST 1060
FST 201	FST 2001
FST 202	FST 2002
FST 203	FST 2003
FST 205	FST 2005
FST 206	FST 2006
FST 207	FST 2007
FST 209	FST 2009
FST 251	FST 2051
FST 255	FST 2055
FST 257	FST 2057
FST 258	FST 2058
FST 259	FST 2059
FST 280	FST 2080

Fire Science Wildland

FSW 100	FSW 1000
FSW 101	FSW 1001
FSW 153	FSW 1053

French

FRE 101	FRE 1001
FRE 111	FRE 1011
FRE 112	FRE 1012
FRE 211	FRE 2011
FRE 212	FRE 2012

Geography

GEO 105	GEO 1005
GEO 106	GEO 1006
GEO 111	GEO 1011
GEO 112	GEO 1012

Geology

GEY 108	GEY 1108
GEY 111	GEY 1111
GEY 112	GEY 1112
GEY 135	GEY 1135
GEY 143	GEY 1044
GEY 205	GEY 2205
GEY 216	GEY 1155

German

GER 111	GER 1011
GER 112	GER 1012
GER 211	GER 2011
GER 212	GER 2012

Health & Wellness

HWE 100	HWE 1050
HWE 103	HWE 1001
HWE 109	HWE 1064
HWE 111	HWE 1062
HWE 118	HWE 1005
HWE 124	HWE 1061
HWE 125	HWE 1065
HWE 137	HWE 1019
HWE 237	HWE 2060
HWE 245	HWE 2062
HWE 248	HWE 2063
HWE 255	HWE 1068
HWE 256	HWE 2064

Health Professional

HPR 101	HPR 1006
HPR 102	HPR 1011
HPR 106	HPR 1008
HPR 111	HPR 1003
HPR 112	HPR 1020
HPR 113	HPR 2020
HPR 117	HPR 1017
HPR 120	HPR 2011
HPR 130	HPR 2013
HPR 139	HPR 1039
HPR 143	HPR 1005
HPR 179	HPR 1079
HPR 190	HPR 1050
HPR 208	HPR 1045

Heating and Air Conditioning

HVA 102	HVA 1002
HVA 105	HVA 1005
HVA 110	HVA 1010
HVA 111	HVA 1011
HVA 112	HVA 1012
HVA 113	HVA 1013
HVA 118	HVA 1018
HVA 120	HVA 1020
HVA 132	HVA 1032
HVA 141	HVA 1041
HVA 142	HVA 1042
HVA 143	HVA 1043
HVA 146	HVA 1046
HVA 201	HVA 2001
HVA 204	HVA 2004
HVA 206	HVA 2006
HVA 222	HVA 2022
HVA 233	HVA 2033
HVA 241	HVA 2041
HVA 245	HVA 2045
HVA 247	HVA 2047
HVA 251	HVA 2051
HVA 252	HVA 2052
HVA 253	HVA 2053
HVA 259	HVA 2059
HVA 262	HVA 2062
HVA 280	HVA 2080
HVA 289	HVA 2089

History

HIS 101	HIS 1310
HIS 102	HIS 1320
HIS 111	HIS 1110
HIS 112	HIS 1120
HIS 121	HIS 1210
HIS 122	HIS 1220
HIS 203	HIS 2140
HIS 205	HIS 2005
HIS 207	HIS 2125
HIS 208	HIS 2115
HIS 215	HIS 2105
HIS 218	HIS 2000
HIS 225	HIS 2135
HIS 235	HIS 2130
HIS 236	HIS 2145
HIS 243	HIS 2610
HIS 244	HIS 2200
HIS 246*	HIS 2210*
HIS 247	HIS 2015
HIS 249	HIS 2500
HIS 250	HIS 2110
HIS 251	HIS 2310
HIS 255	HIS 2300
HIS 259	HIS 2510
HIS 265	HIS 2765

Hospitality

HOS 131	HOS 1031
HOS 148	HOS 1048
HOS 221	HOS 2021
HOS 226	HOS 2026
HOS 231	HOS 2031
HOS 251	HOS 2051
HOS 280	HOS 2080

Humanities

HUM 103	HUM 1003
HUM 115	HUM 1015
HUM 121	HUM 1021
HUM 122	HUM 1022
HUM 123	HUM 1023
HUM 211	HUM 2011

Integrative Health Professions

IHP 100	IHP 1000
IHP 250	IHP 2050
IHP 252	IHP 2052

Interior Design

IND 100	IND 1100
IND 107	IND 1102
IND 111	IND 2200
IND 112	IND 2201
IND 113	IND 2202
IND 117	IND 1017
IND 118	IND 2206
IND 120	IND 2207
IND 151	IND 2208
IND 152	IND 2209
IND 160	IND 2210
IND 161	IND 2500
IND 201	IND 2211
IND 205	IND 2701
IND 211	IND 2300
IND 213	IND 2702
IND 220	IND 2301
IND 225	IND 2302
IND 231	IND 2703
IND 261	IND 2502
IND 265	IND 2704

IND 278	IND 2078
IND 280	IND 2080
IND 288	IND 2088
IND 289	IND 2089

Interpreter Prep Program

IPP 121	IPP 1021
IPP 122	IPP 1022
IPP 125	IPP 1025
IPP 131	IPP 1031
IPP 132	IPP 1032
IPP 145	IPP 1045
IPP 147	IPP 1047
IPP 205	IPP 2005
IPP 207	IPP 2007
IPP 225	IPP 2025
IPP 227	IPP 2027
IPP 229	IPP 2029
IPP 235	IPP 2035
IPP 279	IPP 2079
IPP 281	IPP 2081

Italian

ITA 101	ITA 1001
ITA 111	ITA 1011
ITA 112	ITA 1012
ITA 211	ITA 2011
ITA 212	ITA 2012

Japanese

JPN 101	JPN 1001
JPN 111	JPN 1011
JPN 112	JPN 1012
JPN 211	JPN 2011
JPN 212	JPN 2012

Journalism

JOU 102	JOU 1002
JOU 105	JOU 1005
JOU 106	JOU 1006
JOU 121	JOU 1021
JOU 206	JOU 2006
JOU 215	JOU 2015
JOU 221	JOU 2021
JOU 225	JOU 2025
JOU 231	JOU 2031
JOU 241	JOU 2041
JOU 280	JOU 2080

Law Enforcement Academy

LEA 101	LEA 1001
LEA 102	LEA 1002
LEA 103	LEA 1003
LEA 104	LEA 1004
LEA 105	LEA 1005
LEA 106	LEA 1006
LEA 107	LEA 1007
LEA 108	LEA 1008
LEA 118	LEA 1018

Literature

LIT 115	LIT 1015
LIT 121	LIT 1021
LIT 201	LIT 2001
LIT 202	LIT 2002
LIT 205	LIT 2005
LIT 211	LIT 2011

LIT 212	LIT 2012
LIT 221	LIT 2021
LIT 222	LIT 2022
LIT 225	LIT 2025
LIT 235	LIT 2035
LIT 246	LIT 2046
LIT 248	LIT 2048
LIT 255	LIT 2055
LIT 257	LIT 2057
LIT 258	LIT 2058
LIT 259*	LIT 2059*
LIT 268	LIT 2068
LIT 269	LIT 2069

Machining

MAC 100	MAC 1000
MAC 101	MAC 1001
MAC 102	MAC 1002
MAC 110	MAC 1010
MAC 111	MAC 1011
MAC 112	MAC 1012
MAC 120	MAC 1020
MAC 121	MAC 1021
MAC 122	MAC 1022
MAC 205	MAC 2005
MAC 206	MAC 2006
MAC 240	MAC 2040
MAC 241	MAC 2041
MAC 245	MAC 2045
MAC 246	MAC 2046
MAC 252	MAC 2052
MAC 280	MAC 2080

Management

MAN 116	MAN 1016
MAN 117	MAN 1017
MAN 125	MAN 1025
MAN 128	MAN 1028
MAN 200	MAN 2000
MAN 205	MAN 2005
MAN 210	MAN 2010
MAN 216	MAN 2016
MAN 226	MAN 2026
MAN 240	MAN 2040
MAN 246	MAN 2046

Manufacturing Technology

MTE 130	MTE 1130
MTE 247	MTE 2330

Marketing

MAR 111	MAR 1011
MAR 117	MAR 1017
MAR 160	MAR 1060
MAR 216	MAR 2016
MAR 220	MAR 2020
MAR 240	MAR 2040
MAR 249	MAR 2049

Math

MAT 025	MAT 0200
MAT 055	MAT 0300
MAT 103	MAT 1120
MAT 107	MAT 1140
MAT 108*	MAT 1150*
MAT 112	MAT 1160
MAT 120	MAT 1240

MAT 121	MAT 1340	MGD 153	MGD 1053
MAT 122	MAT 1420	MGD 156	MGD 1056
MAT 123	MAT 1320	MGD 161	MGD 1904
MAT 125	MAT 1400	MGD 164	MGD 1064
MAT 135	MAT 1260	MGD 165	MGD 1065
MAT 155	MAT 1220	MGD 178	MGD 1078
MAT 156	MAT 1230	MGD 180	MGD 1080
MAT 166	MAT 1440	MGD 201	MGD 2001
MAT 201	MAT 2410	MGD 202	MGD 2002
MAT 202	MAT 2420	MGD 207	MGD 1037
MAT 203	MAT 2430	MGD 208	MGD 1038
MAT 204	MAT 2431	MGD 209	MGD 2037
MAT 215	MAT 2520	MGD 210	MGD 2038
MAT 255	MAT 2540	MGD 211	MGD 2011
MAT 261*	MAT 2561*	MGD 212	MGD 2012
MAT 265	MAT 2560	MGD 213	MGD 2013
MAT 266	MAT 2562	MGD 215	MGD 2015
MAT 280	MAT 2080	MGD 217	MGD 2014
		MGD 221	MGD 2021

Medical Assisting Professional

MAP 110	MAP 1010	MGD 222	MGD 2022
MAP 120	MAP 1020	MGD 223	MGD 2023
MAP 138	MAP 2038	MGD 235	MGD 2035
MAP 140	MAP 2040	MGD 241	MGD 2041
MAP 150	MAP 1050	MGD 242	MGD 2042
MAP 183	MAP 1083	MGD 243	MGD 2043
MAP 189	MAP 2069	MGD 258	MGD 2058
MAP 280	MAP 2080	MGD 259	MGD 2059
		MGD 264	MGD 2064

Medical Office Technology

MOT 121	MOT 1010	MGD 265	MGD 2065
MOT 122	MOT 1015	MGD 268	MGD 2068
MOT 124	MOT 1020	MGD 280	MGD 2080
MOT 125	MOT 1025	MGD 289	MGD 2089
MOT 126	MOT 1036		

Music

MOT 131	MOT 2040	MUS 100	MUS 1000
MOT 133	MOT 1026	MUS 101	MUS 1001
MOT 135	MOT 1027	MUS 105	MUS 1005
MOT 181	MOT 1081	MUS 110	MUS 1010
MOT 182	MOT 1082	MUS 111	MUS 1011
MOT 208	MOT 1050	MUS 112	MUS 1012
MOT 209	MOT 1060	MUS 113	MUS 1013
MOT 210	MOT 1061	MUS 120	MUS 1020
		MUS 121	MUS 1021

Meteorology

MET 150	MET 1050	MUS 122	MUS 1022
		MUS 123	MUS 1023

Multimedia Graphic Design

MGD 102	MGD 1002	MUS 125	MUS 1025
MGD 103	MGD 1020	MUS 126	MUS 1026
MGD 104	MGD 1004	MUS 131	MUS 1031
MGD 105	MGD 1015	MUS 132	MUS 1032
MGD 106	MGD 1006	MUS 133	MUS 1033
MGD 107	MGD 1007	MUS 134	MUS 1034
MGD 109	MGD 1009	MUS 141	MUS 1041
MGD 110	MGD 1010	MUS 142	MUS 1042
MGD 111	MGD 1011	MUS 143	MUS 1043
MGD 112	MGD 1012	MUS 144	MUS 1044
MGD 114	MGD 1013	MUS 151	MUS 1051
MGD 116	MGD 1014	MUS 152	MUS 1052
MGD 117	MGD 1017	MUS 153	MUS 1053
MGD 121	MGD 1021	MUS 154	MUS 1054
MGD 132	MGD 1032	MUS 167	MUS 1067
MGD 134	MGD 1034	MUS 210	MUS 2010
MGD 141	MGD 1041	MUS 211	MUS 2011
MGD 143	MGD 1043	MUS 212	MUS 2012
		MUS 213	MUS 2013
		MUS 231	MUS 2031

MUS 232	MUS 2032		OUT 112	OUT 1125
MUS 233	MUS 2033		OUT 113	OUT 1130
MUS 234	MUS 2034		OUT 114	OUT 1135
MUS 241	MUS 2041		OUT 115	OUT 1685
MUS 242	MUS 2042		OUT 116	OUT 1330
MUS 243	MUS 2043		OUT 119	OUT 1350
MUS 244	MUS 2044		OUT 120	OUT 2350
MUS 251	MUS 2051		OUT 126	OUT 1160
MUS 252	MUS 2052		OUT 129	OUT 1520
MUS 253	MUS 2053		OUT 131	OUT 1510
MUS 254	MUS 2054		OUT 132	OUT 2510
			OUT 133	OUT 1530

Natural Resources

			OUT 134	OUT 1200
NRE 100	NRE 1100		OUT 135	OUT 1210
NRE 102	NRE 1002		OUT 136	OUT 1205
NRE 204	NRE 2204		OUT 137	OUT 1300
NRE 205	NRE 2205		OUT 138	OUT 1310
NRE 212	NRE 2012		OUT 139	OUT 2310
NRE 214	NRE 2014		OUT 140	OUT 1585
NRE 225	NRE 2025		OUT 143	OUT 1120
NRE 236	NRE 2036		OUT 144	OUT 1050
NRE 278	NRE 2078		OUT 151	OUT 1651
NRE 280	NRE 2080		OUT 167	OUT 1570
			OUT 168	OUT 1670

Nursing

			OUT 187	OUT 1087
NUR 106	NUR 1006		OUT 201	OUT 1385
NUR 109	NUR 1009		OUT 202	OUT 2002
NUR 112	NUR 1012		OUT 203	OUT 2003
NUR 150	NUR 1050		OUT 204	OUT 2300
NUR 169	NUR 1069		OUT 205	OUT 2005
NUR 189	NUR 1089		OUT 206	OUT 1390
NUR 206	NUR 2006		OUT 207	OUT 2007
NUR 211	NUR 2011		OUT 209	OUT 1680
NUR 212	NUR 2012		OUT 211	OUT 2011
NUR 216	NUR 2016		OUT 216	OUT 1540
NUR 230	NUR 2030		OUT 218	OUT 2330
NUR 301	NUR 3001		OUT 243	OUT 2043
NUR 302	NUR 3002		OUT 244	OUT 2044
NUR 303	NUR 3003		OUT 245	OUT 2045
NUR 304	NUR 3004		OUT 246	OUT 1080
NUR 305	NUR 3005		OUT 268	OUT 2068
NUR 306	NUR 3006		OUT 269	OUT 2069
NUR 307	NUR 3007		OUT 289	OUT 2089
NUR 408	NUR 4008			

Paralegal

			PAR 114	PAR 1114
NUR 409	NUR 4009		PAR 115	PAR 1115
NUR 410	NUR 4010		PAR 116	PAR 1116
NUR 411	NUR 4011		PAR 117	PAR 1117
			PAR 118	PAR 1118

Nursing Assistant

			PAR 125	PAR 1125
NUA 101	NUA 1001		PAR 127	PAR 1127
NUA 102	NUA 1002		PAR 201	PAR 2201
NUA 105	NUA 1005		PAR 202	PAR 2202
NUA 170	NUA 1070		PAR 205	PAR 2205
NUA 171	NUA 1071		PAR 206	PAR 2206
NUA 174	NUA 1074		PAR 208	PAR 2208
			PAR 209	PAR 2209

Occupational Safety Technician

			PAR 213	PAR 2213
OSH 126	OSH 1311		PAR 280	PAR 2080
OSH 127	OSH 1310		PAR 287	PAR 2087

Outdoor Studies

Park Ranger

			PRA 205	PRA 2005
OUT 101	OUT 1550		PRA 218	PRA 2018
OUT 102	OUT 1020			
OUT 108	OUT 1010			
OUT 109	OUT 1600			
OUT 110	OUT 1560			
OUT 111	OUT 2560			

Pharmacy Technician

PHT 111	PHT 1011
PHT 112	PHT 1012
PHT 114	PHT 1014
PHT 115	PHT 1015
PHT 116	PHT 1040
PHT 118	PHT 1016
PHT 119	PHT 1041
PHT 170	PHT 1070
PHT 171	PHT 1071
PHT 235	PHT 1035
PHT 250	PHT 2050
PHT 255	PHT 2055
PHT 280	PHT 2080

Philosophy

PHI 111	PHI 1011
PHI 112	PHI 1012
PHI 113	PHI 1013
PHI 114	PHI 1014
PHI 115	PHI 1015
PHI 116	PHI 1016
PHI 142	PHI 1042
PHI 201	PHI 2001
PHI 205	PHI 2005
PHI 214	PHI 2014
PHI 218	PHI 2018
PHI 220*	PHI 2020*
PHI 250	PHI 2050

Photography

PHO 101	PHO 1001
PHO 105	PHO 1005
PHO 120	PHO 1020
PHO 143	PHO 1043
PHO 205	PHO 2005
PHO 206	PHO 2006
PHO 226	PHO 2026
PHO 232	PHO 2032
PHO 233	PHO 2052
PHO 234	PHO 2034
PHO 235	PHO 2035
PHO 236	PHO 2036
PHO 237	PHO 2037
PHO 258	PHO 2058
PHO 260	PHO 2060
PHO 263	PHO 2063
PHO 266	PHO 2066
PHO 268	PHO 2188
PHO 269	PHO 2187
PHO 280	PHO 2080
PHO 281	PHO 2081

Physical Education

PED 100	PED 1000
PED 102	PED 1002
PED 103	PED 1003
PED 110	PED 1010
PED 111	PED 1011
PED 112	PED 1012
PED 113	PED 1013
PED 122	PED 1022
PED 126	PED 1026
PED 129	PED 1029
PED 140	PED 1040
PED 141	PED 1041

PED 142	PED 1042
PED 143	PED 1043
PED 144	PED 1044
PED 151	PED 1051
PED 161	PED 1061
PED 162	PED 1062
PED 163	PED 1063
PED 164	PED 1064
PED 230	PED 2030
PED 231	PED 2031

Physical Therapist Assistant

PTA 110	PTA 1010
PTA 115	PTA 1015
PTA 120	PTA 1020
PTA 124	PTA 1024
PTA 131	PTA 1031
PTA 134	PTA 1034
PTA 135	PTA 1035
PTA 140	PTA 1040
PTA 141	PTA 1041
PTA 205	PTA 2005
PTA 230	PTA 2030
PTA 240	PTA 2040
PTA 251	PTA 2051
PTA 278	PTA 2078
PTA 280	PTA 2080
PTA 281	PTA 2081
PTA 282	PTA 2082

Physics

PHY 105	PHY 1105
PHY 107*	PHY 1107*
PHY 111	PHY 1111
PHY 112	PHY 1112
PHY 211	PHY 2111
PHY 212	PHY 2112
PHY 213	PHY 2113

Plumbing

PLU 207	PLU 2007
PLU 208	PLU 2008
PLU 250	PLU 2050

Political Science

POS 105	POS 2020
POS 111	POS 1011
POS 125	POS 1025
POS 136	POS 1036
POS 205	POS 2005
POS 215	POS 1050
POS 225	POS 2025
POS 280	POS 2080

Psychology

PSY 100	PSY 1005
PSY 101	PSY 1001
PSY 102	PSY 1002
PSY 112	PSY 2332
PSY 150	PSY 2223
PSY 200	PSY 2000
PSY 205	PSY 2105
PSY 207*	PSY 2770*
PSY 217	PSY 2107
PSY 226	PSY 2221
PSY 227	PSY 2222
PSY 231	PSY 2331

PSY 235	PSY 2440
PSY 238	PSY 2441
PSY 240	PSY 2333
PSY 247	PSY 2551
PSY 249	PSY 2552
PSY 250	PSY 2220
PSY 251	PSY 2660
PSY 255	PSY 2661
PSY 258	PSY 2662
PSY 265	PSY 2771

Public Security Management

PSM 130	PSM 1030
PSM 132	PSM 1032
PSM 133	PSM 1033
PSM 135	PSM 1035
PSM 136	PSM 1036
PSM 137	PSM 1037
PSM 200	PSM 2000

Radio & Television

RTV 100	RTV 1000
RTV 101	RTV 1001
RTV 102	RTV 1002
RTV 103	RTV 1003
RTV 104	RTV 1004
RTV 107	RTV 1202
RTV 108	RTV 1006
RTV 111	RTV 1011
RTV 112	RTV 1010
RTV 113	RTV 1007
RTV 120	RTV 1008
RTV 180	RTV 1180
RTV 181	RTV 1181
RTV 182	RTV 1082
RTV 183	RTV 1083
RTV 208	RTV 1005
RTV 210	RTV 2003
RTV 211	RTV 2001
RTV 212	RTV 2002
RTV 218	RTV 2005
RTV 219	RTV 2016
RTV 260	RTV 2007
RTV 280	RTV 2080
RTV 281	RTV 2181
RTV 282	RTV 2182
RTV 283	RTV 2083
RTV 284	RTV 2184

Radiologic Technology

RTE 101	RTE 1001
RTE 111	RTE 1011
RTE 121	RTE 1021
RTE 122	RTE 1022
RTE 141	RTE 1041
RTE 142	RTE 1042
RTE 181	RTE 1081
RTE 182	RTE 1082
RTE 183	RTE 1083
RTE 221	RTE 2021
RTE 231	RTE 2031
RTE 281	RTE 2081
RTE 282	RTE 2082
RTE 289	RTE 2089

Recreation

REC 100	REC 1000
REC 111	REC 1011
REC 210	REC 2010
REC 211	REC 2011
REC 212	REC 2012

Russian

RUS 111	RUS 1011
RUS 112	RUS 1012
RUS 211	RUS 2011
RUS 212	RUS 2012

Science

SCI 105	SCI 1105
SCI 155	SCI 1055
SCI 156	SCI 1056

Social Work

SWK 100	SWK 1000
SWK 105	SWK 1050
SWK 106	SWK 1060
SWK 180	SWK 1080
SWK 181	SWK 1081
SWK 201	SWK 2010
SWK 202	SWK 2020
SWK 205	SWK 2050
SWK 207	SWK 2070
SWK 208	SWK 2008
SWK 222	SWK 2222
SWK 280	SWK 2080

Sociology

SOC 101	SOC 1001
SOC 102	SOC 1002
SOC 205	SOC 2005
SOC 207	SOC 2007
SOC 216	SOC 2016
SOC 218	SOC 2018
SOC 220	SOC 2020
SOC 231	SOC 2031
SOC 237	SOC 2037

Spanish

SPA 101	SPA 1001
SPA 102	SPA 1002
SPA 109	SPA 1009
SPA 111	SPA 1011
SPA 112	SPA 1012
SPA 114	SPA 1014
SPA 115	SPA 1015
SPA 201	SPA 2001
SPA 202	SPA 2002
SPA 211	SPA 2011
SPA 212	SPA 2012
SPA 215	SPA 2015
SPA 261	SPA 2061
SPA 262	SPA 2062
SPA 289	SPA 2089

Surgical Technology

STE 100	STE 1000
STE 101	STE 1001
STE 105	STE 1005
STE 110	STE 1010
STE 115	STE 1015
STE 120	STE 1020

STE 179	STE 2068
STE 181	STE 1081
STE 182	STE 1082
STE 183	STE 1083

Sustainability Studies

SUS 101	SUS 1001
SUS 201	SUS 2001

Theatre

THE 104	THE 1004
THE 105	THE 1005
THE 108	THE 1008
THE 111	THE 1011
THE 112	THE 1012
THE 115	THE 1015
THE 116	THE 1016
THE 126	THE 1026
THE 131	THE 1031
THE 132	THE 1032
THE 135	THE 1035
THE 136	THE 1036
THE 140	THE 1040
THE 144	THE 1044
THE 152	THE 1052
THE 181	THE 1081
THE 182	THE 1082
THE 183	THE 1083
THE 204	THE 2004
THE 211	THE 2011
THE 212	THE 2012
THE 213	THE 2013
THE 215	THE 2015
THE 216	THE 2016
THE 220	THE 2020
THE 231	THE 2031
THE 232	THE 2032
THE 246	THE 2046
THE 247	THE 2047
THE 248	THE 2048
THE 255	THE 2055

Translation and Interpretation

TRI 101	TRI 1001
TRI 103	TRI 1003
TRI 201	TRI 2001
TRI 202	TRI 2002
TRI 203	TRI 2003

Veterinary Technology

VET 102	VET 1002
VET 103	VET 1003
VET 104	VET 1004
VET 106	VET 1206
VET 108	VET 1008
VET 109	VET 1009
VET 114	VET 1014
VET 115	VET 1015
VET 116	VET 1016
VET 117	VET 1017
VET 120	VET 1020
VET 134	VET 1034
VET 182	VET 1082
VET 183	VET 1083
VET 205	VET 2005
VET 206	VET 2006

VET 223	VET 2023
VET 224	VET 2024
VET 225	VET 2025
VET 227	VET 2027
VET 232	VET 2032
VET 238	VET 2038
VET 239	VET 2039
VET 241	VET 1241
VET 242	VET 2042
VET 250	VET 2050
VET 280	VET 2080
VET 281	VET 2081
VET 282	VET 2082

Water Quality Management

WQM 100	WQM 1000
WQM 105	WQM 1005
WQM 106	WQM 1006
WQM 109	WQM 1009
WQM 115	WQM 1015
WQM 116	WQM 1016
WQM 118	WQM 1018
WQM 119	WQM 1019
WQM 120	WQM 1020
WQM 126	WQM 1026
WQM 200	WQM 2000
WQM 212	WQM 2012
WQM 216	WQM 2016
WQM 280	WQM 2080
WQM 289	WQM 2089

Welding

WEL 100	WEL 1000
WEL 106	WEL 1006
WEL 113	WEL 1013
WEL 114	WEL 1014
WEL 115	WEL 1015
WEL 121	WEL 1021
WEL 122	WEL 1022
WEL 124	WEL 1024
WEL 125	WEL 1025
WEL 130	WEL 1030
WEL 180	WEL 1080
WEL 200	WEL 2000
WEL 205	WEL 2005
WEL 224	WEL 2024
WEL 225	WEL 2025
WEL 230	WEL 2030
WEL 231	WEL 2031
WEL 240	WEL 2040
WEL 250	WEL 2050
WEL 263	WEL 2063
WEL 264	WEL 2064
WEL 280	WEL 2080
WEL 289	WEL 2089

Women and Gender Studies

WST 200	WST 2000
WST 225	WST 2100
WST 240*	WST 2200*
WST 249*	WST 2300*

Zookeeping

ZOO 101	ZOO 1010
ZOO 102	ZOO 1813
ZOO 103	ZOO 1040

ZOO 104	ZOO 1041
ZOO 107	ZOO 1030
ZOO 110	ZOO 1815
ZOO 111	ZOO 1811
ZOO 112	ZOO 1818
ZOO 113	ZOO 1812
ZOO 114	ZOO 1816
ZOO 115	ZOO 1710
ZOO 117	ZOO 1020
ZOO 120	ZOO 1817
ZOO 122	ZOO 1814
ZOO 125	ZOO 1810
ZOO 145	ZOO 1310
ZOO 155	ZOO 1410
ZOO 165	ZOO 1610
ZOO 180	ZOO 1080
ZOO 181	ZOO 1081
ZOO 200	ZOO 1110
ZOO 203	ZOO 2040
ZOO 206	ZOO 1210
ZOO 207	ZOO 1030
ZOO 215	ZOO 1320
ZOO 245	ZOO 1510
ZOO 255	ZOO 2410
ZOO 265	ZOO 2610
ZOO 267	ZOO 2710
ZOO 280	ZOO 2080
ZOO 281	ZOO 2081

Accounting Courses

ACC 1001 Fundamentals of Accounting
(Previously ACC 101 Fundamentals of Accounting)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces accounting fundamentals with emphasis on the procedures and practices used in business organizations. Major topics include the accounting cycle for service and merchandising companies, including end-of-period reporting.

ACC 1011 Introduction to Financial Accounting
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on financial accounting concepts prescribed by Generally Accepted Accounting Principles (GAAP), including financial information for external partners, the accounting cycle process, basic terminology, transaction analysis, internal control systems, and financial statement preparation and analysis.

ACC 1012 Introduction to Managerial Accounting
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ACC 1001 or ACC 1011 or ACC 1021
Focuses on the fundamentals of managerial accounting and cost management as tools to aid internal users' decision-making processes. This course covers basic managerial accounting concepts, such as product costing and cost behavior and control. It also covers internal management decision making tools, including cost-volume-profit analysis, budgeting, cost analysis, and planning and control systems.

ACC 1015 Payroll Accounting
(Previously ACC 115 Payroll Accounting)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ACC 1001 or concurrent enrollment, or ACC 1011 or concurrent enrollment, or ACC 1021 or concurrent enrollment
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 1021 Accounting Principles I
(Previously ACC 121 Accounting Principles I)
4 Credit Hours • 60 Contact Hours (Lecture)
This course introduces accounting principles for understanding the theory and logic that underlie procedures and practices for business organizations. Major topics include the accounting cycle for service and merchandising companies, internal control principles and practices, notes and interest, inventory systems and costing, and plant and intangible asset accounting.

ACC 1022 Accounting Principles II
(Previously ACC 122 Accounting Principles II)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ACC 1021
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 1025 Computerized Accounting
(Previously ACC 125 Computerized Accounting)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls.

ACC 1031 Income Tax
(Previously ACC 131 Income Tax)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces basic concepts of federal income taxation and tax administration with emphasis on taxation of individuals and sole proprietorships.

ACC 1032 Tax Help Colorado
(Previously ACC 132 Tax Help Colorado)
2 Credit Hours • 30 Contact Hours (Lecture)
Note: ACC 1001 or ACC 1011 recommended, but not required
Examines the preparation of individual, federal, and state income tax returns within the guidelines and limitations set forth by the Tax Help Colorado program and IRS guidelines.

ACC 1033 Tax Help Colorado Practicum
(Previously ACC 133 Tax Help Colorado Practicum)
1 Credit Hour • 30 Contact Hours (Practicum)
Prerequisite: ACC 1032
Utilizes income tax knowledge and training in the context of a community service setting. Volunteers prepare individual federal and state income tax within the parameters of the Tax Help Colorado program and Internal Revenue Service (IRS) guidelines.

ACC 1035 Spreadsheet Applications for Accounting
(Previously ACC 135 Spreadsheet Applications for Accounting)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ACC 1001 or concurrent enrollment or ACC 1011 or concurrent enrollment or ACC 1021 or concurrent enrollment; CIS 1018 or concurrent enrollment or CIS 1055 or concurrent enrollment
Introduces spreadsheets as an accounting tool in the application of fundamental accounting concepts, problem-solving, and decision-making skills.

ACC 2011 Intermediate Accounting I
(Previously ACC 211 Intermediate Accounting I)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ACC 1012 or ACC 1022
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 2012 Intermediate Accounting II
(Previously ACC 212 Intermediate Accounting II)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ACC 2011
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 2016 Governmental & Not-for-Profit Accounting
(Previously ACC 216 Governmental & Not-for-Profit Accounting)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ACC 1012 or ACC 1022
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 2026 Cost Accounting
(Previously ACC 226 Cost Accounting)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ACC 1021 or ACC 1022
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 2031 Business Taxation
(Previously ACC 231 Business Taxation)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ACC 1031 or ACC 1032
Introduces student to taxation of business entities and transactions. Topics include taxation of property transactions, various tax issues that apply to different tax entities, tax administration and practice, and the taxation effects of formation, operation, and dissolution of corporations, partnerships, S corporations, trusts and estates.

ACC 2087 Cooperative Education
(Previously ACC 287 Cooperative Education)
3 Credit Hours • 135 Contact Hours (Cooperative Education)
Note: Must have faculty consent to enroll
For Accounting majors only
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 Courses

AAA 1001 College 101: Student Experience
(Previously AAA 101 College 101: Student Experience)
1 Credit Hour • 15 Contact Hours (Lecture)
Grading: P/F only
Introduces students to college culture and prepares them for the challenges they will face in higher education. Through a series of interactive seminars, students discover learning in a multicultural environment and use college and community resources to attain education and career goals.

AAA 1009 Advanced Academic Achievement
(Previously AAA 109 Advanced Academic Achievement)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines theories and practices associated with successful learning to enhance college success. Techniques covered include academic proficiency, personal management, effective collegiate communication, critical and creative thinking, development of community, awareness of diverse identities, and educational and career planning.

Agriculture Crops and Soils Course

AGY 2140 Introductory Soil Science: SC1
(Previously AGY 240 Introductory Soil Science: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Focuses on formation, physical properties, chemical properties, and management of soils emphasizing conditions that affect plant growth.

American Sign Language Courses

ASL 1121 American Sign Language I
(Previously ASL 121 American Sign Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
Exposes the student to American Sign Language. Readiness activities are conducted focusing on visual/receptive skills and basic communication. Utilizes the direct experience method. Students must complete this course with a grade of B or higher or pass the ASL proficiency test with a score of at least 80% or better prior to registering for ASL 1122 if planning to enroll in the Interpreter Preparation Program.

ASL 1122 American Sign Language II
(Previously ASL 122 American Sign Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
Develops a basic syntactic knowledge of American Sign Language (ASL), basic vocabulary, and basic conversational skills. Incorporates vital aspects of deaf culture and community. The direct experience method is used to enhance the learning process. Students must complete this course with a grade of B or higher or pass the ASL 1121 proficiency test at 80% or better prior to acceptance into the Interpreting and Transliterating Preparation program.

ASL 1123 American Sign Language III
(Previously ASL 123 American Sign Language III)
5 Credit Hours • 75 Contact Hours (Lecture)
Provides the student an opportunity to develop a stronger grasp of American Sign Language (ASL), as well as the cultural features of the language. ASL vocabulary is also increased. The direct experience method is used to further enhance the learning process. This course is a continuation of ASL 1122 with more emphasis on expressive skills in signing.

ASL 1125 Fingerspelling
(Previously ASL 125 Fingerspelling)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides the student an opportunity to develop expressive and receptive fingerspelling through various class activities.

ASL 1135 Conversational ASL
(Previously ASL 135 Conversational ASL)
2 Credit Hours • 30 Contact Hours (Lecture)
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. This course is designed for students who have not met the minimum requirements to continue with ASL 2221.

ASL 2215 ASL Literature
(Previously ASL 215 ASL Literature)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides the student with an opportunity to recognize the impact of Deaf Culture on emerging ASL Literature. Covers non-fiction, fiction, poetry, and drama depicted in readings and videotapes related to everyday lives of Deaf people. Develops insight and appreciation of Deaf literature and its implications for Deaf education.

ASL 2221 American Sign Language IV: AH4
(Previously ASL 221 American Sign Language IV: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues to provide further study of American Sign Language (ASL) and its grammar, syntax, and cultural features. This course helps develop intermediate-level competency and fluency in the language and addresses variations in ASL.

ASL 2222 American Sign Language V: AH4
(Previously ASL 222 American Sign Language V: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on increasing advanced intermediate-level proficiency in understanding and using American Sign Language (ASL).

Anthropology Courses

ANT 1001 Cultural Anthropology: SS3
(Previously ANT 101 Cultural Anthropology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines the study of human cultural patterns, including communication, economic systems, social and political organizations, religion, healing systems, and cultural change.

ANT 1003 Introduction to Archaeology: SS3
(Previously ANT 107 Introduction to Archaeology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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.

ANT 1005 Biological Anthropology with Laboratory: SC1
(Previously ANT 111 Biological Anthropology with Laboratory: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
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 1101 Exploring Other Cultures I
(Previously ANT 221 Exploring Other Cultures I)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an anthropological understanding of a selected culture. Areas of study include the culture's 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 2101 Exploring Other Cultures II
(Previously ANT 222 Exploring Other Cultures II)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an anthropological understanding of another selected culture (continuation of ANT 1101) with a more in-depth treatment. Areas of study include the culture's 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 2115 Native Peoples of North America: SS3
(Previously ANT 215 Native Peoples of North America: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

ANT 2125 Anthropology of Religion: SS3
(Previously ANT 225 Anthropology of Religion: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores the culturally universal phenomenon of religion including cross-cultural varieties of beliefs in the supernatural and the religious rituals people employ to interpret and control their worlds.

ANT 2130 Sex, Gender & Culture: SS3
(Previously ANT 260 Sex, Gender & Culture)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores the anthropology of gender including the relationship between biology and culture in human evolution, archaeological evidence of gender distinctions in prehistory, cross-cultural constructions of masculinity, femininity, and sexuality, variations in the sexual division of labor and economic stratification, gender differences in ritual and religion, and the impact of gender issues in contemporary global culture change.

ANT 2218 Archaeology of the Bible
(Previously ANT 218 Archaeology of the Bible)
3 Credit Hours • 45 Contact Hours (Lecture)
Examining the early civilizations and major cities described in the Bible, this course is designed to use the methods and critical examination of archaeology. Students will explore the cultural history of the Near East from the Neolithic period to the end of the Iron Age. Students will focus on the Old Testament starting with the domestication of plants and animals in the Neolithic, followed by the development of villages, and then by cities in Israel, Babylon, and Egypt.

ANT 2315 Introduction to Forensic Anthropology with Lab: SC1
(Previously ANT 212 Introduction to Forensic Anthropology with Lab: SC1)
4 Credit Hours ● 75 Contact Hours (45 Lecture, 30 Lab)
Covers the basic principles of forensic anthropology, an applied field within the discipline of biological anthropology. The course includes the study of the human skeleton, practical application of biological anthropology and archaeology, and judicial procedure, as they relate to the identification of human remains within a medico-legal context.

ANT 2317 Human Prehistory
(Previously ANT 207 Human Prehistory)
3 Credit Hours • 45 Contact Hours (Lecture)
Survey current archaeological and paleoanthropological knowledge of human prehistory from the earliest hominins to the civilizations of the Old and New Worlds. Explore the interrelatedness of biological and cultural attributes in earlier hominin evolution. Examine phylogenetic controversies such as the multiregional vs. replacement models on later hominin evolution. Analyze competing hypotheses concerning the Neolithic and Urban revolutions.

ANT 2545 Anthropology of Energy
(Previously ANT 255 Anthropology of Energy)
3 Credit Hours • 45 Contact Hours (Lecture)
Questions of energy production and consumption occupy a central role in national and global debates. Where does the majority of our energy currently come from, and where should it come from in the future? What is at stake in our energy lifestyles on both local and global scales?

ANT 2550 Medical Anthropology: SS3
(Previously ANT 250 Medical Anthropology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
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 the medical systems between cultures.

Arabic Courses

ARA 1011 Arabic Language I
(Previously ARA 111 Arabic Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the Arabic language.

ARA 1012 Arabic Language II
(Previously ARA 112 Arabic Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
Continues Arabic Language I in the development of functional proficiency in listening, speaking, reading, and writing the Arabic language. This course is conducted predominantly in Arabic.

ARA 2011 Arabic Language III
(Previously ARA 211 Arabic Language III)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues Arabic Language II in the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing, and cultural competency in the Arabic language. This course is conducted predominantly in Arabic.

ARA 2012 Arabic Language IV
(Previously ARA 212 Arabic Language IV)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues Arabic Language III in the development of increased functional proficiency at advanced intermediate level in speaking, aural comprehension, reading, writing, and cultural competency in the Arabic language. This course is conducted predominantly in Arabic.

Architectural Engineer/Construction Management Courses

AEC 1110 History of Architecture
(Previously AEC 125 History of Architecture)
3 Credit Hours • 45 Contact Hours (Lecture)
This course will cover major periods of architectural development. Social and cultural values influencing architecture will be highlighted as well as the interaction of art, engineering, and architecture as forms of expression.

AEC 1200 Print Reading Residential/Commercial
(Previously AEC 107 Print Reading Residential/Commercial)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1220 or CON 1057 or concurrent enrollment
Interpret construction prints and the related documents produced by the residential or commercial architect and used in the construction industry.

AEC 1220 Architectural Drawing Theory
(Previously AEC 104 Architectural Drawing Theory)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: CAD 1104 or concurrent enrollment
Print reading, construction assemblies, terminology, isometric drawings, orthographic projections, and oblique sketching.

AEC 1231 Residential Construction Drawing
(Previously AEC 102 Residential Construction Drawing)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1200, AEC 1220, CAD 1104
Covers an investigation of 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 1232 Commercial Construction Drawing
(Previously AEC 123 Commercial Construction Drawing)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1220, AEC 1231, CAD 1104
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 1520 Construction Material & Systems
(Previously AEC 121 Construction Material & Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1200, AEC 1220
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 1600 Construction Practices & Documents
(Previously AEC 122 Construction Practices & Documents)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: AEC 1200, AEC 1220, AEC 1231, CAD 1104
Investigates construction practices, specifications, contracts, and other legal documents used in the building construction industry. The roles and responsibilities of design and construction team participants are also explored.

AEC 2080 Internship
(Previously AEC 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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.

AEC 2230 Architectural Design & Development
(Previously AEC 225 Architectural Design & Development)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1231, AEC 1232, AEC 1520, AEC 2300, CAD 2220
Reviews conceptual design, site analysis, and architectural drafting techniques. Students will be introduced to the development of design ideas and theories and learn how to present those ideas visually. Students will be required to analyze a site and produce a design solution that responds to that particular site through a combination of research data, conceptual models, drawings, and sketches. The student will produce a final presentation of all relevant data, sketches, conceptual models, and drawings using presentation boards produced in various graphical programs.

AEC 2300 Sustainable Building Systems
(Previously AEC 218 Sustainable Building Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: AEC 1200, AEC 1220, AEC 1231, AEC 1520
Investigates the technologies and strategies related to sustainable (green) materials and systems for buildings. Topics include energy and environmental consciousness/regulations; the high-performance building envelope; alternative construction techniques (adobe, cob, rammed earth, straw bale); microclimate/site factors; sustainable/green materials; and passive solar; active thermal solar, photovoltaic energy, wind energy conversion, on site water use/reuse and waste disposal systems.

AEC 2610 Construction Estimating
(Previously AEC 216 Construction Estimating)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1200, AEC 1520 or CON 1057, CIS 1018
Note: Advisor approval required
Covers basic construction estimating. The student will develop skills in estimating the amount and cost of various constructions. He/She will demonstrate these skills by making estimates of material and labor quantities and cost for representative types of construction.

AEC 2630 Construction Scheduling
(Previously AEC 226 Construction Scheduling)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1200, AEC 2610; AEC 1520 or CON 1057
Students will research various methods of project scheduling. Emphasis will be placed on critical path method techniques and strategies.

AEC 2650 Construction Project Management
(Previously AEC 232 Construction Project Management)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1231, AEC 1520, AEC 2610, AEC 2630, AEC 2700, CAD 1104, CAD 2220
Investigates building construction management principles including a study of systematic scheduling techniques, project tracking and control methods, and budget and cost analysis and control.

AEC 2660 Construction Safety & Loss Prevention
(Previously AEC 233 Construction Safety & Loss Prevention)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1200, AEC 1220, AEC 1520 or concurrent enrollment
Explores construction site hazards and unsafe practices, related health and safety regulations and standards, and loss and theft prevention. Training in basic first aid and CPR is included.

AEC 2700 International Building Codes
(Previously AEC 236 International Building Codes)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: AEC 1231 and AEC 1520, or AEC 1200 and CON 1057
A study is made of the restrictions, standards, and requirements that in the interest of public safety and welfare have been established by law to govern the construction of buildings and their materials. Specifications are developed to describe building materials to be furnished and how they are to be installed.

AEC 2930 Professional Workplace Skills & Presentation
(Previously AEC 255 Professional Workplace Skills & Presentation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1232, AEC 2230 or concurrent enrollment, AEC 2650 or concurrent enrollment, CAD 2220
Implements workplace tools and skills of the architecture profession and construction industry. Includes instruction on developing a resume and design portfolio in a visually artistic and professional manner. The course will also include lessons in workplace, customer and client relations, teambuilding, participation, and employer expectations.

Art Courses

ART 1001 Color Theory
(Previously ART 230 Color Theory)
3 Credit Hours • 90 Contact Hours (Studio)
Explores the properties and concepts of color for application in fine art, commercial art and/or applied arts using various traditional fine art techniques and materials.

ART 1002 Visual Concepts 2-D Design
(Previously ART 131 Visual Concepts 2-D Design)
3 Credit Hours • 90 Contact Hours (Studio)
Examines the basic elements of design, visual perception, and artistic form and composition as they relate to two-dimensional media.

ART 1003 3-D Design
(Previously ART 132 Visual Concepts 3-D Design)
3 Credit Hours • 90 Contact Hours (Studio)
Note: ART 1003 is not computer-based
Introduces the fundamentals of three-dimensional design, form, and space. The course applies the elements and principles of design to three-dimensional problems.

ART 1005 Digital Art Foundations I
(Previously ART 150 Digital Art Foundations I)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
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 1006 Digital Art Foundations II
(Previously ART 250 Digital Art Foundations II)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Prerequisite: ART 1005
Reviews and further explores the process of generating design utilizing a variety of digital tools. In this course, students will develop their proficiency with the digital tools and learn more advanced techniques in drawing and painting. Students will develop and evaluate their design-oriented projects using the elements and principles. Portfolio development, strong content, and a blending of a variety of computer art applications will be emphasized.

ART 1110 Art Appreciation: AH1
(Previously ART 110 Art Appreciation: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions, and terminology.

ART 1111 Art History Ancient to Medieval: AH1
(Previously ART 111 Art History Ancient to Medieval: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides the knowledge base to understand the visual arts, especially as related to Western culture. This course surveys the visual arts from the Ancient through the Medieval periods.

ART 1112 Art History Renaissance to 1900: AH1
(Previously ART 112 Art History Renaissance to 1900: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides the knowledge base to understand the visual arts, especially as related to Western culture. This course surveys the visual arts from the Renaissance to 1900.

ART 1113 Art History 1900 to Present: AH1
(Previously ART 207 Art History 1900 to Present: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the concepts necessary to understand modern visual art, with an emphasis on world art of the 20th century. This course surveys world art of the 20th century, including Modernism to Post-Modernism.

ART 1115 History of Photography
(Previously ART 113 History of Photography)
3 Credit Hours • 45 Contact Hours (Lecture)
Surveys the history of photography from its beginnings to the present. Emphasizes individual photographers who have made significant contributions to the field. Includes technical, artistic, commercial, and social development of photography as a form of visual communication.

ART 1117 Culture Studies
(Previously ART 208 Culture Studies)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Studies the arts and history of a particular culture at the location of that culture. Students view the arts and architecture of the culture in the historical and spatial contexts for which they were designed and in galleries and museums.

ART 1201 Drawing I
(Previously ART 121 Drawing I)
3 Credit Hours • 90 Contact Hours (Studio)
Investigates the various approaches and media that students need to develop drawing skills and visual perception.

ART 1202 Drawing II
(Previously ART 221 Drawing II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1201
Explores expressive drawing techniques with an emphasis on formal composition, black and white, and color media and content or thematic development.

ART 1203 Figure Drawing I
(Previously ART 128 Figure Drawing I)
3 Credit Hours • 90 Contact Hours (Studio)
Note: ART 1201 recommended, but not required
Introduces the basic techniques of drawing the human figure.

ART 1204 Landscape Drawing I
(Previously ART 127 Landscape Drawing I)
3 Credit Hours • 90 Contact Hours (Studio)
Emphasizes nature, particularly landscape. Drawing outside or in view of landscape using graphite, ink, prismacolor, pastel, and washes. Students concentrate on various approaches, viewpoints, and styles and acquire expertise and interpretation in a variety of media.

ART 1205 Drawing for the Graphic Novel
(Previously ART 122 Drawing for the Graphic Novel)
3 Credit Hours • 90 Contact Hours (Studio)
Note: ART 1201 and ART 1203 recommended, but not required
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 1301 Painting I
(Previously ART 151 Painting I)
3 Credit Hours • 90 Contact Hours (Studio)
Note: ART 1201 recommended, but not required
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 1302 Painting II
(Previously ART 251 Painting II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1301
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 1303 Portraiture
(Previously ART 155 Portraiture)
3 Credit Hours • 90 Contact Hours (Studio)
Introduces portrait drawing using various media, such as pencil, charcoal, pastel, and watercolor. Head and hand structures and their individual features and composition (using art elements and principles) are emphasized.

ART 1305 Landscape Painting
(Previously ART 152 Landscape Painting)
3 Credit Hours • 90 Contact Hours (Studio)
Focuses on specific landscape concerns in the painting media of your choice.

ART 1307 Watercolor I
(Previously ART 124 Watercolor I)
3 Credit Hours • 90 Contact Hours (Studio)
Note: ART 1201 recommended, but not required
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 1308 Watercolor II
(Previously ART 224 Watercolor II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1307
Continues the study of watercolor techniques, emphasizing original compositions and experimentation with materials. Color theory is included.

ART 1401 Digital Photography I
(Previously ART 139 Digital Photography I)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1402 Darkroom Photography I
(Previously ART 138 Film Photography I)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces black and white film photography as a fine art medium and focuses on skills necessary for basic camera and darkroom lab operations.

ART 1405 Mixed Media I: Digital Art
(Previously ART 149 Mixed Media I: Digital Art)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Introduces students to the design and creation of fine-art composites that involve the combinations of techniques, texture, drawing, painting, photography, and objects, and emphasizes the computer as an art tool. In addition to incorporating technology-based vocabulary as it relates to fine-art technique, vector and raster applications are explored for the creation of montage and collage. No computer experience is necessary.

ART 1501 Printmaking I
(Previously ART 129 Printmaking I)
3 Credit Hours • 90 Contact Hours (Studio)
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 1502 Printmaking II
(Previously ART 229 Printmaking II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1501
Introduces more advanced 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 1604 Jewelry & Metalwork I
(Previously ART 133 Jewelry & Metalwork I)
3 Credit Hours • 90 Contact Hours (Studio)
Introduces metalsmithing techniques and design used for jewelry and small-scale sculptural objects. This course introduces fabrication and forming techniques such as soldering, forming, hollow construction, cold connections, surface treatment, finishing processes, and basic stone setting. This course includes generating and constructing functional jewelry and sculpture.

ART 1605 Jewelry & Metalwork II
(Previously ART 233 Jewelry & Metalwork II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1604
Introduces intermediate metalsmithing techniques and design used for jewelry and small-scale, sculptural objects. This course covers intermediate fabrication and forming techniques including synclastic and anticlastic forming, forging, advanced soldering techniques, and lost-wax casting. This course involves generating and constructing both functional jewelry and sculpture, as well as emphasizing individual research, compositional development, and critical analysis.

ART 1701 Handbuilt Clay I
(Previously ART 162 Handbuilt Clay I)
3 Credit Hours • 90 Contact Hours (Studio)
Provides instruction in several methods of hand building and the study of functional and decorative design elements.

ART 1702 Handbuilt Clay II
(Previously ART 163 Handbuilt Clay II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1701
Provides continued instruction in various methods of hand building.

ART 1703 Ceramics I
(Previously ART 161 Ceramics I)
3 Credit Hours • 90 Contact Hours (Studio)
Introduces traditional and contemporary approaches to ceramic form and processes, with an emphasis on hand building techniques, and a basic introduction to the potter's wheel. This course includes basic surface design, glaze, and kiln firing procedures.

ART 1704 Ceramics II Wheel Throwing
(Previously ART 261 Ceramics II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1703
Course covers ceramic wheel throwing and explores intermediate-level traditional and contemporary approaches to ceramic form and processes. This course emphasizes wheel throwing techniques and forms. It covers additional development of surface design, glazing, glaze formulation, and kiln firing procedures.

ART 1705 Raku
(Previously ART 166 Raku)
3 Credit Hours • 90 Contact Hours (Studio)
Studies the Japanese art of Raku pottery. Students may hand build or make wheel thrown pots and will be involved in the unique firing process.

ART 1803 Weaving Techniques Southwest I
(Previously ART 118 Weaving Techniques Southwest I)
3 Credit Hours • 90 Contact Hours (Studio)
Introduces traditional Southwest weaving. Focuses on building a loom, carding raw wool, hand spinning, dye baths, and actual rug weaving. Explores Southwest history and culture as related to weaving.

ART 1805 Stained Glass I
(Previously ART 115 Stained Glass I)
3 Credit Hours • 90 Contact Hours (Studio)
Develops a basic understanding and approach to stained glass. Students gain an understanding of and appreciation for the properties of glass and the nature of finished stained glass construction.

ART 1806 Stained Glass II
(Previously ART 116 Stained Glass II)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1805
A continuation of Stained Glass I, students advance to a clearer but still basic understanding and approach to stained glass. Students gain a greater understanding of and appreciation for the properties of glass and the nature of finished stained glass construction.

ART 2003 Advanced Visual Concepts 3-D Design
(Previously ART 232 Advanced Visual Concepts 3-D Design)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1003
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 2049 Mixed Media II: Digital Art
(Previously ART 249 Mixed Media II: Digital Art)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Prerequisite: ART 1405
Continues the design and creation of fine-art composites with the emphasis on digital tools and techniques. More advanced drawing and painting techniques are also emphasized, using digital creation techniques. Learners will develop and design artistic projects to demonstrate studio elements and principles. Portfolio development, strong content, and a blending of a variety of computer applications for art will be emphasized.

ART 2080 Internship
(Previously ART 280 Internship)
1-6 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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 2089 Capstone: Studio Art
(Previously ART 289 Capstone)
1-6 Credit Hours • Per Credit Hour, 30 Contact Hours (Lab)
Note: Must have faculty consent to enroll
Provides a demonstrated culmination of learning within a given program of study.

ART 2201 Drawing III
(Previously ART 222 Drawing III)
3 Credit Hours • 90 Contact Hours (Studio)
Offers a continued study of expressive drawing techniques and development of individual style, with an emphasis on composition and technique variation.

ART 2202 Drawing IV
(Previously ART 223 Drawing IV)
3 Credit Hours • 90 Contact Hours (Studio)
Explores advanced drawing problems with an emphasis on conceptual development and portfolio and/or exhibition quality presentation.

ART 2203 Advanced Figure Drawing
(Previously ART 228 Advanced Figure Drawing)
3 Credit Hours • 90 Contact Hours (Studio)
Provides continuing study of the various methods of drawing the human figure, with emphasis on the description of form and individual style.

ART 2301 Painting III
(Previously ART 252 Painting III)
3 Credit Hours • 90 Contact Hours (Studio)
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 2302 Painting IV
(Previously ART 253 Painting IV)
3 Credit Hours • 90 Contact Hours (Studio)
Explores advanced techniques, materials, and concepts used in opaque painting processes, with emphasis on the development of themes and a cohesive body of work.

ART 2307 Watercolor III
(Previously ART 225 Watercolor III)
3 Credit Hours • 90 Contact Hours (Studio)
Concentrates on the advanced study of subject development, form, color, and theme in watercolor.

ART 2308 Watercolor IV
(Previously ART 226 Watercolor IV)
3 Credit Hours • 90 Contact Hours (Studio)
Concentrates on the advanced study of techniques, individual style or expression, and consistency of compositional problem solving in watercolor.

ART 2401 Digital Photography II
(Previously ART 239 Digital Photography II)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
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 2402 Darkroom Photography II
(Previously ART 238 Film Photography II)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Explores intermediate-to-advanced level film camera and darkroom lab operations. This course emphasizes individual creativity and conceptual use of the medium and includes the development of a comprehensive portfolio.

ART 2405 Portrait Photography
(Previously ART 144 Portrait Photography)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
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 2407 Landscape Photography
(Previously ART 142 Landscape Photography)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Focuses on traditional and contemporary approaches to landscape photography. This course examines historic, technical, and aesthetic aspects of landscape photography.

ART 2410 Alternative Photo Processes
(Previously ART 242 Alternative Photo Processes)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1401 or ART 1402
Explores non-silver photographic processes including Cyanotype, Kallitype, Palladium, Gum, Bromoil, or other handmade darkroom printing techniques. This course teaches production of enlarged digital negatives from original images and scanned objects for contact printing with these processes. This course includes traditional darkroom and mixed media techniques.

ART 2603 Jewelry & Metalwork III
(Previously ART 234 Jewelry & Metalwork III)
3 Credit Hours • 90 Contact Hours (Studio)
Continues intermediate metalsmithing techniques and design used for jewelry and small-scale sculptural objects. This course covers intermediate fabrication and forming techniques, such as chasing and repoussé, chain making, and mechanisms. This course includes generating and constructing functional jewelry and sculpture, and emphasizes ideation practices including individual research, compositional development, and critical analysis.

ART 2604 Jewelry & Metalwork IV
(Previously ART 235 Jewelry & Metalwork IV)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1605 or ART 2603
Continues the development of metalsmithing techniques and design used for jewelry and small-scale sculptural objects. Topics include advanced fabrication and forming techniques, such as advanced stone setting, die forming, and alternative casting processes. This course includes the generation and construction of functional jewelry and sculpture while emphasizing ideation practices that include individual research, compositional development, and critical analysis. This course also focuses on creating a cohesive body of work for a portfolio.

ART 2702 Ceramic Sculpture
(Previously ART 264 Ceramic Sculpture)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1701 or ART 1703
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 2703 Ceramics III Molding and Slip Casting
(Previously ART 262 Ceramics III)
3 Credit Hours • 90 Contact Hours (Studio)
Covers ceramic mold making and slip casting techniques and explores intermediate-level traditional and contemporary approaches to ceramic form and additional development of surface design, glazing, glaze formulations, and kiln firing procedures as it applies to molded and cast forms.

ART 2704 Ceramics IV
(Previously ART 263 Ceramics IV)
3 Credit Hours • 90 Contact Hours (Studio)
Prerequisite: ART 1704 or ART 2703
Explores advanced level ceramic form and surface design. This course includes advanced use of clay bodies, unique glazes, engobes, surface textures, and firing methods. Emphasis is placed on individual style and developing strategies to translate an idea into sculptural and functional forms.

ART 2805 Stained Glass III
(Previously ART 215 Stained Glass III)
3 Credit Hours • 90 Contact Hours (Studio)
Provides continued instruction in which students advance to a clearer and more advanced understanding and approach to stained glass. Students gain a greater understanding of and appreciation for the properties of glass and the nature of finished stained glass construction. Emphasizes original, personal expression.

ART 2806 Stained Glass IV
(Previously ART 216 Stained Glass IV)
3 Credit Hours • 90 Contact Hours (Studio)
Continues instruction in stained glass with students advancing to a clearer understanding and approach. Students gain greater appreciation for the properties of glass and the nature of finished stained glass construction. Focuses on original, personal expression. Student independence is emphasized with regard to use of material and tools and a wide variety of glass.

ART 2901 Business of Visual Art
(Previously ART 211 Business of Visual Art)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to the principles and practices involved in creating and operating arts organizations in the profit and not-for-profit art world.

ART 2902 Marketing for Visual Arts
(Previously ART 210 Marketing for Visual Arts)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2906 Studio Art
(Previously ART 209 Studio Art)
3 Credit Hours • 90 Contact Hours (Studio)
Designed for advanced students interested in further exploring an art discipline to develop a more comprehensive portfolio.

Astronomy Courses

AST 1003 Colorado Night Sky III
(Previously AST 110 Colorado Night Sky III)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Develops an appreciation of and competence in observational astronomy with the naked eye or small telescope. Introduces the use of images from major telescopes and spacecraft as a tool for experiencing the night sky. Special emphasis will be placed on the World Wide Telescope and what it has to offer. Rare observations such as supernovae, comets and solar activity will also be covered. Advanced tools of telescope astronomy and astrophotography may also be discussed. Emphasis is on observation rather than theory.

AST 1110 Planetary Astronomy with Lab: SC1
(Previously AST 101 Planetary Astronomy with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
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 1120 Stellar Astronomy with Lab: SC1
(Previously AST 102 Stellar Astronomy with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
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 1140 Astronomy of Ancient Cultures: SC2
(Previously AST 155 Astronomy of Ancient Cultures: SC2)
3 Credit Hour • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Introduces the study of archeoastronomy and ethnoastronomy. The principles of unaided eye observational astronomy, timekeeping, navigation, religion and ritual, political power, cosmology, and worldview are covered. Methods of the ethnoastronomer, including measurement of architectural alignments, analysis of written records, examination of art, and general knowledge about a culture, will be discussed.

Auto Motorsports Technology Courses

AUT 1005 Introduction to Motorsports Technology
(Previously AUT 105 Introduction to Motorsports Technology)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Provides an introduction to the motorsports industry and support industries. Introduces shop safety and vehicle safety.

AUT 1008 Racing Vehicle Systems
(Previously AUT 108 Racing Vehicle Systems)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces racing vehicle systems, placing emphasis on chassis design, suspension and steering, engine systems, ignition systems, cooling systems, lubrication systems, clutch systems, transmissions, drive axles, and brake systems.

AUT 1009 High Performance Suspension & Chassis Design
(Previously AUT 109 High Performance Suspension & Chassis Design)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces the fundamentals of chassis types and components. Includes steering and suspension component theory, tire and wheel theory, chassis design, and geometry theory as applied to oval track, drag race, and road race vehicles.

AUT 1010 High Performance Suspension & Chassis Setup
(Previously AUT 110 High Performance Suspension & Chassis Setup)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces chassis set-up based on vehicle purpose. Incorporates chassis measurement, including ride heights, caster, camber, steering toe, ackerman, control arm angles, roll centers, and weight distribution. All measurements are taken, and adjustments completed to allow the vehicle to perform as desired.

AUT 1016 High Performance Brake Systems
(Previously AUT 116 High Performance Brake Systems)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces high performance brake systems as applied to racing vehicles.

AUT 1018 High Performance Power Trains
(Previously AUT 118 High Performance Power Trains)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces high performance transmissions, drive lines, and differentials. Includes design, repair, and service techniques as applied to racing vehicles.

AUT 1019 High Performance Electrical & Fuel Systems
(Previously AUT 119 High Performance Electrical & Fuel Systems)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces electrical and fuel systems as applied to racing vehicles. Includes carburetion, fuel injection, fuel pumps, fuel cells, ignition systems, switches, and wiring.

AUT 1025 Engines I
(Previously AUT 125 Engines I)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Provides for individual study, enabling self-paced instruction and features an open entry, open exit system. Emphasizes video and computer technology. Includes operation and construction of the internal combustion engine, both domestic and foreign. Covers inspection, measuring, parts identification, and vehicle I.D. The student presents video and computer knowledge by use of mock-up engines with instructor supervision.

AUT 1026 Engines II
(Previously AUT 126 Engines II)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Develops procedures of diagnosis and testing from a knowledge of engine operation. Performs a complete engine rebuild process including the use of special equipment studied in AUT 1025 and through the use of video and computer-assisted instruction.

AUT 1027 High Performance Lubrication & Cooling Systems
(Previously AUT 127 High Performance Lubrication & Cooling Systems)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces basics of wet and dry sump lubrication systems, oil delivery and filtration systems, oil chemical design and function. Focuses on the theory of cooling system design, components and coolants used in high performance applications.

AUT 1028 High Performance Engine Design, Blueprinting & Testing
(Previously AUT 128 High Performance Engine Design, Blueprinting & Testing)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces high performance engine theory, design, components, and their function. Emphasizes disassembly and assembly techniques and an introduction to dynamometer testing.

AUT 1036 Introduction to Racecar Body Fabrication
(Previously AUT 136 Introduction to Racecar Body Fabrication)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Introduces a variety of techniques used in the forming of racecar body panels made up of various types of materials. Emphasizes sheet steel, aluminum, and composite plastics. Students practice the fabrication and finishing of body panels. Tools and equipment typically used in the industry are also covered.

AUT 1037 Introduction to Racecar Chassis Fabrication
(Previously AUT 137 Introduction to Racecar Chassis Fabrication)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces the student to various designs and methods for fabrication of racecar chassis and roll cage components. Covers body mounting techniques and suspension pick up points.

AUT 2005 Advanced Automotive Engines
(Previously AUT 205 Advanced Automotive Engines)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
This course is a continuation of Automotive Engines II with an emphasis on advanced diagnosis and engine rebuild techniques.

AUT 2006 High Performance Engines
(Previously AUT 206 High Performance Engines)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Focuses on the theory of design and development of high-performance engines. Covers the use of specialty equipment for the development of high-performance engines.

Automotive Collision Technology Courses

ACT 1001 Introduction to Automotive Collision Technology
(Previously ACT 101 Introduction to Automotive Collision Technology)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Provides an orientation to the automotive collision repair industry which includes an overview of job possibilities and various types of automobile construction. This course covers names, uses, and maintenance procedures for a variety of tools and equipment with a focus on general collision repair and refinishing, shop safety procedures with an emphasis on personal and environmental safety issues, and proper handling and disposal of hazardous materials.

ACT 1011 Metal Welding & Cutting I
(Previously ACT 111 Metal Welding & Cutting I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers sheet metal oxygen-acetylene welding and MIG welding techniques including safety, materials, equipment, and setups. Personal and vehicle protective measures prior to welding procedures are presented.

ACT 1021 Non-Structural Repair Preparation
(Previously ACT 121 Non-Structural Repair Preparation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers the basic characteristics of preparation for automotive repair. Students familiarize themselves with damage analysis, extent of damage, and the sequence of repair. Focuses on removal of vehicle components and protection of panels along with storage and labeling of parts. Safety procedures and equipment use are included.

ACT 1022 Panel Repair & Replacements
(Previously ACT 122 Panel Repair & Replacements)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers straightening techniques including tension pulls/stress relief, metal finishing, metal shrinking, and use of fillers. Emphasizes the identification, handling, and replacement of parts such as adjustment and alignment of bolt-on parts, fixed parts, and accessories. Training covers the use of adhesives, sound deadeners, and welding methods performed during repairs.

ACT 1023 Metal Finishing & Body Filling
(Previously ACT 123 Metal Finishing & Body Filling)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers metal finishing, metal shrinking, and the use of cosmetic fillers. Emphasis is placed on the use of proper tools required to perform these tasks, including use, selection, and safety procedures for tools and equipment selected.

ACT 1024 Replace Weld-on Exterior Panel
(Previously ACT 124 Replace Weld-on Exterior Panel)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers the replacement of welded-on exterior panels such as quarters, roofs, cab panels, side panels, etc. Emphasis is placed on the use of proper tools required to perform these tasks, including use, selection, and safety procedures for tools and equipment selected.

ACT 1031 Structural Damage Diagnosis
(Previously ACT 131 Structural Damage Diagnosis)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on methods of frame measurement using dimension charts and service manuals. Includes the use of self-centering gauges and mechanical and electronic measuring. Appropriate terms and definitions of vehicle structures and vehicle diagnosis are covered, including identification and analysis of damage. Includes the techniques for basic hook ups and safety procedures used in making corrective pulls.

ACT 1032 Structural Damage Repair
(Previously ACT 132 Structural Damage Repair)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Continues the study and application of frame measurement and repair. The student applies methods found in dimension charts and service manuals for vehicle diagnosis and straightening. Training includes the replacement of a structural panel with the identification of damaged suspension components replaced according to manufacturer's recommendations.

ACT 1042 Surface Preparation I
(Previously ACT 142 Surface Preparation I)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers surface preparation for refinishing including cleaning, sanding, feather edging, chemical treatment of bare materials, and priming. The application of primers, including rationale and use is covered. In addition, the student learns skills for proper removal and storage of exterior trim and protection of adjacent panels.

ACT 1043 Spray Equipment Operation
(Previously ACT 143 Spray Equipment Operation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the inspection, cleaning, and determination of the condition of spray guns and related equipment. Students learn skills for adjusting spray guns by setting-up and testing spray gun operations.

ACT 1044 Refinishing I
(Previously ACT 144 Refinishing I)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Provides the knowledge needed for application and use of automotive paint systems. Course includes locating color codes, mixing formulas, matching, and selections of materials. Proper paint gun use and adjustments are taught for the product being applied. In addition, the student practices correct masking and detailing techniques.

ACT 1051 Plastics & Adhesives I
(Previously ACT 151 Plastics & Adhesives I)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Designed to teach the state-of-the-art repair for both rigid and flexible plastic components and choosing adhesives using the latest manufacturer's repair techniques.

ACT 1060 Custom Painting
(Previously ACT 160 Custom Painting)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
This course provides instruction in basic custom paint application such as pearl paints, candy colors, metal flakes, etc.

ACT 1064 Hobbyist Paint & Body
(Previously ACT 164 Hobbyist's Paint & Body)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Grading: P/F only
Provides an opportunity for current and former students enrolled in the Auto Collision Technology program to practice skills previously learned, using their own vehicles as projects. Any automotive hobbyist who is not a former student may also sign up for the course; however, previous knowledge of basic body working and painting procedures is strongly recommended.

ACT 1065 Automotive Body Customizing I
(Previously ACT 165 Automotive Body Customizing I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers tool identification welding (mig and resistance), plasma cutting, metal finishing, metal shrinking and the use of cosmetic fillers. Emphasis is placed on the use of proper tools required to perform body customizing tasks, including use, selection and safety procedures for tools and equipment selected.

ACT 1066 Automotive Body Customizing II
(Previously ACT 166 Automotive Body Customizing II)
3 Credit Hours ● 67.5 Contact Hours (Lecture/Lab Combination)
Covers modification of vehicle and vehicle parts such as Chopping, measuring. realigning, fabricating, recessing, shaping etc.

ACT 1067 Automotive Body Customizing III
(Previously ACT 167 Automotive Body Customizing III)
3 Credit Hours ● 67.5 Contact Hours (Lecture/Lab Combination
Covers the completion of modifications that were started in Automotive Body Customizing II along with the addition of body molding kits.

ACT 1070 Automotive Collision Technology Lab Experiences I
(Previously ACT 170 Automotive Collision Technology Lab Experiences I)
4 Credit Hours ● 90 Contact Hours (Lecture/Lab Combination
Designed to prepare the student to perform basic tasks for a specialized area in a controlled instructional lab.

ACT 1071 Automotive Collision Technology Lab Experiences II
(Previously ACT 171 Automotive Collision Technology Lab Experiences II)
4 Credit Hours ● 90 Contact Hours (Lecture/Lab Combination
Course is a continuation of Lab experience. Designed to prepare the individual to perform basic tasks for a specialized area in a controlled instructional lab.

ACT 1072 Automotive Collision Technology Lab Experiences III
(Previously ACT 172 Automotive Collision Technology Lab Experiences III)
4 Credit Hours ● 90 Contact Hours (Lecture/Lab Combination
Course is a continuation of Lab experience. Designed to prepare the individual to perform basic tasks for a specialized area in a controlled instructional lab.

ACT 1080 Automotive Collision Repair Internship Level I
(Previously ACT 180 Automotive Collision Repair Internship Level I)
2 Credit Hours • 90 Contact Hours (Internship)
Note: Completion of coursework in a specialized area
Designed to meet the needs of the student in a selected specialized area in a work-based environment. Individualized instruction at the job site is coordinated based on student's interest and instructor approval.

ACT 1081 Automotive Collision Repair Level II Internship
(Previously ACT 181 Automotive Collision Repair Level II Internship)
2 Credit Hours • 90 Contact Hours (Internship)
Note: Completion of all coursework in ACT specialization area
Course is a continuation of Level I Internship. Student uses the knowledge and skills acquired throughout the ACT program in a job site placement.

ACT 2005 Estimating & Shop Management
(Previously ACT 205 Estimating & Shop Management)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Initiates written estimates on damaged vehicles. Students learn shop management including work orders, ordering supplies, operating costs, timecards, shop liabilities, employee's safety and insurance management issues.

ACT 2007 Customer Relations & Sales
(Previously ACT 207 Customer Relations & Sales)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Practices customer relation skills needed to successfully sell service and repairs. During this course students will learn to explain repair processes and how to deal with customers who have a loss and appropriately direct them through the proper procedures of repair.

ACT 2011 Metal Welding & Cutting II
(Previously ACT 211 Metal Welding & Cutting II)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers MIG welding procedures of seam weld, stitch welds, and destructive testing. Resistance spot welding, which includes two-sided spot weld, plasma cutting, safety, materials, and equipment and operating procedures, with emphasis on shop safety is also presented.

ACT 2015 Paintless Dent Repair
(Previously ACT 215 Paintless Dent Repair)
3 Credit Hours ● 67.5 Contact Hours (Lecture/Lab Combination
Examines straightening techniques associated with hail dents and door dings and emphasizes the identification of repairable dents and tools used for those repairs. This course includes the use of conventional Paintless Dent Repair (PDR) tools, glue pulling, and induction heating dent removal in aluminum and steel panels. Topics include lighting, damage access, color sanding and polishing, and estimating repair cost.

ACT 2021 Moveable Glass & Hardware
(Previously ACT 221 Moveable Glass & Hardware)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers door glass, vent windows, and glass mechanisms (both electric and mechanical) with emphasis on removal and replacement. In addition, interior trim panels, seats, and headliners are removed and replaced. Student learns proper care and treatment of vehicle seat protectors plus the proper use of tools required to perform these tasks.

ACT 2026 Production
(Previously ACT 226 Production)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Simulates the actual working procedures of an auto collision repair technician. The student performs a variety of structural and non-structural repairs, as well as refinishing operations in accordance with industry procedures, and in compliance with estimates and flat-rate times from collision estimating guides. Students also develop leadership abilities and time management skills.

ACT 2031 Advanced Structural Damage Diagnosis & Repair
(Previously ACT 231 Advanced Structural Damage Diagnosis & Repair)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers major automotive body repair in vehicles with major damage on conventional structures and unibody structures. Student learns the operation of equipment and techniques used to straighten and align damaged frames. Identification and analysis of frames, hot and cold stress relieving, servicing, and sectioning of structural frames are also included. Liability issues and the importance of making these corrections according to the manufacturer's recommendations and industry standards are emphasized.

ACT 2032 Automotive Glass Repair
(Previously ACT 232 Automotive Glass Repair)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the removal and replacement of automotive glass using manufacturer's specifications, proper tools, and recommended materials. The course emphasizes the application of skills for the removal and replacement of modular and fixed glass using manufacturer's specifications and procedures.

ACT 2041 Paint Defects
(Previously ACT 241 Paint Defects)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers paint defects. Emphasizes the causes of paint defects with methods to cure problems during and after refinishing procedures. Students learn to identify the proper surface preparations to apply prior to refinishing. Training includes using paint equipment and determining paint film thickness with proper temperatures for refinishing.

ACT 2042 Surface Preparation II
(Previously ACT 242 Surface Preparation II)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes surface preparation for refinishing including cleaning, sanding, feather edging, chemical treatment of bare metals, and priming. The application of primers, including why and where to use them is covered.

ACT 2043 Refinishing II
(Previously ACT 243 Refinishing II)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
In this advanced course students learn the necessary skills used to tint and blend panels working with the latest finishes and paints. Special coatings and procedures are covered in this course.

ACT 2044 Final Detail
(Previously ACT 244 Final Detail)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Focuses on the detailing procedures in paint refinishing of vehicles. Methods and techniques are specialized to enhance painting skills. Transfers and tapes methods with decals, etc. are demonstrated.

ACT 2051 Plastics & Adhesives II
(Previously ACT 251 Plastics & Adhesives II)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Emphasizes advanced plastic and adhesives. The current state-of-the-art repair for both rigid and flexible plastic components using the latest manufacturer's repair techniques is presented. Sheet Molded Compound procedures and the use of proper adhesives are covered.

Automotive Service Technology Courses

ASE 1002 Introduction to the Automotive Shop
(Previously ASE 102 Introduction to the Automotive Shop)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.

ASE 1010 Automotive Brake Service I
(Previously ASE 110 Automotive Brake Service I)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 1011 Automotive Brake Service II
(Previously ASE 111 Automotive Brake Service II)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 1020 Basic Automotive Electricity
(Previously ASE 120 Basic Automotive Electricity)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 1023 Starting & Charging System
(Previously ASE 123 Starting & Charging System)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 1030 General Engine Diagnosis
(Previously ASE 130 General Engine Diagnosis)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Covers how to perform basic engine diagnosis to determine condition of engine including engine support systems. This course meets MLR/AST/MAST requirements.

ASE 1032 Ignition System Diagnosis & Repair
(Previously ASE 132 Ignition System Diagnosis & Repair)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments, and repair of various automotive ignition systems.

ASE 1034 Automotive Fuel & Emissions Systems I
(Previously ASE 134 Automotive Fuel & Emissions Systems I)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 1040 Suspension & Steering I
(Previously ASE 140 Suspension & Steering I)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Focuses on diagnosis and service of suspension and steering systems and components. This course meets MLR/AST/MAST requirements.

ASE 1041 Suspension & Steering II
(Previously ASE 141 Suspension & Steering II)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 1050 Manual Drive Train & Axle Maintenance
(Previously ASE 150 Manual Drive Train & Axle Maintenance)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Covers the operating principles and repair procedures relating to axle-shafts, propeller shafts, and universal joints. This course meets MLR/AST/MAST requirements.

ASE 1051 Automotive Manual Transmission/Transaxles & Clutches I
(Previously ASE 151 Automotive Manual Transmission/Transaxles & Clutches I)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Focuses on the diagnosis and repair of automotive manual transmissions, transaxles, clutches, and related components. This course meets AST/MAST requirements.

ASE 1052 Manual Transmission, Transaxles & Clutches II
(Previously ASE 152 Manual Transmission, Transaxles & Clutches II)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four-wheel and all-wheel drive units.

ASE 1060 Automotive Engine Repair
(Previously ASE 160 Automotive Engine Repair)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 1061 Automotive Engine Repair & Rebuild
(Previously ASE 161 Automotive Engine Repair & Rebuild)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
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 2001 Automotive Parts Management I
(Previously ASE 201 Automotive Parts Management)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Familiarizes the student with the job requirements and responsibilities of an automotive parts specialist. Included is instruction in the proper completion of parts invoices, repair orders, sales receipts and tickets, and other forms that are utilized in a parts business.

ASE 2010 Automotive Power & ABS Brake Systems
(Previously ASE 210 Automotive Power & ABS Brake Systems)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
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 2021 Automotive & Diesel Body Electrical
(Previously ASE 221 Automotive & Diesel Body Electrical)
4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lab)
Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

ASE 2031 Automotive Computers & Ignition Systems
(Previously ASE 231 Automotive Computers & Ignition Systems)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Focuses on lecture and laboratory experiences in the inspection and testing of typical computerized engine control systems.

ASE 2033 Auto Fuel Injection & Emissions Systems II
(Previously ASE 233 Auto Fuel Injection & Emissions Systems II)
4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lab)
Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

ASE 2035 Drivability & Diagnosis
(Previously ASE 235 Drivability & Diagnosis)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Focuses on diagnostic techniques and the use of diagnostic scan tools, oscilloscopes, lab scopes, multi-meters, and gas analyzers.

ASE 2040 Suspension & Steering III
(Previously ASE 240 Suspension & Steering III)
2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lab)
Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

ASE 2050 Automatic Transmission/Transaxle Service
(Previously ASE 250 Automatic Transmission/Transaxle Service)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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 2051 Automotive Transmission & Transaxle Repair
(Previously ASE 251 Automotive Transmission & Transaxle Repair)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 2065 Heating & Air Conditioning Systems
(Previously ASE 265 Heating & Air Conditioning Systems)
4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lab)
Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

ASE 2182 Internship: General (Summer)
(Previously ASE 282 Internship: General (Summer))
0-12 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
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 (F.A.S.T.) Fundamental Automotive

Systems Training (Chrysler) or others as required by the program track.

Aviation Technology Courses

AVT 1055 Unmanned Aircraft Systems Flight Training
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces and develops flight control and piloting techniques for common UAS platforms. Students will learn and demonstrate maneuvers, procedures, and best practices for safe UAS operation on fixed wing and rotary wing unmanned aircraft systems (drones).

AVT 2055 Unmanned Aircraft Systems Ground School
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Demonstrates readiness for the UAS Operator written test. Regulations pertaining to UAS operations will be introduced, including airspace, weather, and flight parameter limitations. The student will also demonstrate knowledge of UAS components and systems, maintenance, autonomy, ground stations, and telemetry.

AVT 2056 Unmanned Aircraft Systems Commercial Applications
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Explains the wide variety of commercial applications of Unmanned Aircraft Systems and operating procedures to ensure a safe outcome for executing such applications. Students will model commercial scenarios to learn about Geographic Information Systems, aerial imaging and survey techniques, multispectral and LIDAR systems, agriculture, and other UAS mission types.

Biology Courses

BIO 1003 Principles of Animal Biology: SC2
(Previously BIO 103 Principles of Animal Biology: SC2)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: Recommend College Readiness in English and Quantitative Literacy Math
Introduces the study of animals and their interactions with the environment. This course includes principles of evolution, taxonomy, phylogeny, morphology, behavior, and ecology. It includes the study of animal diversity, emphasizing the characteristics and classifications of major phyla. The loss of biodiversity and conservation will also be covered.

BIO 1004 Biology: A Human Approach: SC1
(Previously BIO 104 Biology: A Human Approach: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: Recommend College Readiness in English and Quantitative Literacy Math
Note: College level reading skills are required for success in this course
Develops a basic knowledge of the structure and function of the human body by studying the body`s structure as a series of interrelated systems. Includes cardiovascular, respiratory, digestive, lymphatic, musculoskeletal, nervous, endocrine, reproductive and urinary systems, and genetics. Emphasizes disease prevention and wellness. This course includes laboratory experience.

BIO 1005 Science of Biology with Lab: SC1
(Previously BIO 105 Science of Biology with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: Recommend College Readiness in English and Quantitative Literacy Math
Note: College level reading skills are required for success in this course
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, and the impact of biological science on society. This course includes a laboratory experience. Designed for non-science majors.

BIO 1006 Basic Anatomy & Physiology
(Previously BIO 106 Basic Anatomy & Physiology)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: Recommend College Readiness in English and Quantitative Literacy Math
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 and the Medical Office Technology program.

BIO 1015 Human Genetics
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on a study of the inheritance of human traits. It is a non-mathematical study for the non-science major. Includes Mendelian, non-Mendelian, sex-linked, blood type traits, inherited diseases, and ethics.

BIO 1016 Introduction to Human Disease: SC2
3 Credit Hours • 45 Contact Hours (Lecture)
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 1048 Basic Ecology
(Previously BIO 148 Basic Ecology)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Studies the interrelationships between organisms and their environment. Includes population dynamics and the diversity of ecosystems. Laboratory includes field experience.

BIO 1050 Animal Biology
(Previously BIO 150 Animal Biology)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Focuses on the phylogenetic study of animals. Includes an introduction to the invertebrates and a concentrated study of the diverse vertebrate forms. Laboratory experiences parallel lecture topics.

BIO 1111 General College Biology I with Lab: SC1
(Previously BIO 111 General College Biology I with Lab: SC1)
5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
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 1112 General College Biology II with Lab: SC1
(Previously BIO 112 General College Biology II with Lab: SC1)
5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Examines the fundamental principles of ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

BIO 2101 Human Anatomy & Physiology I with Lab: SC1
(Previously BIO 201 Human Anatomy & Physiology I with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: BIO 1111 (Grade of C or higher), Biology Placement Test with a score of 70 or higher, or permission of Department Chair or Advisor
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 and nervous systems. Includes a mandatory hands-on laboratory experience covering microscopy, observations, and dissection. This is the first semester of a two-semester sequence.

BIO 2102 Human Anatomy & Physiology II with Lab: SC1
(Previously BIO 202 Human Anatomy & Physiology II with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: BIO 2101
Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: endocrine, cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive and development. Includes a mandatory hands-on laboratory experience involving microscopy, observations, and dissection.

BIO 2103 Advanced Human Anatomy
(Previously BIO 203 Advanced Human Anatomy)
2 Credit Hours • 60 Contact Hours (Lab)
Prerequisite: BIO 2101; BIO 2102 or concurrent enrollment
Examines the gross anatomical structure of the human body and the relationship between form and function. Students will prosect 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 2104 Microbiology with Lab: SC1
(Previously BIO 204 Microbiology with Lab: SC1)
4 Credit Hours • 90 Contact Hours (45 Lecture, 45 Lab)
Covers the diversity of microorganisms, their structure, physiology, and the identification process. There is an emphasis on microorganisms that cause infectious disease and the process of infection, host immune responses, and methods to control microorganisms. Laboratory experiences include culturing, identifying, and controlling microorganisms. This course is designed for students pursuing a health science field.

BIO 2116 Human Pathophysiology
(Previously BIO 216 Human Pathophysiology)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: BIO 2101; BIO 2102 or concurrent enrollment
Focuses on the alterations in physiological, cellular, and biochemical processes, the associated homeostatic responses, and the manifestations of disease. Prior knowledge of cellular biology, anatomy, and physiology is essential for the study of pathophysiology.

BIO 2121 Botany with Lab: SC1
(Previously BIO 221 Botany with Lab: SC1)
5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)
Prerequisite: BIO 1112 or NRE 1100
Covers plants, emphasizing photosynthetic pathways, form and function, reproduction, physiology, diversity, and evolution. This course requires mandatory hands-on laboratory and research experience and is designed for biology majors.

BIO 2124 Genetics: SC1

(Previously BIO 224 Genetics: SC1)
4 Credit Hour • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: BIO 1111
Examines the structure, transmission, and expression of hereditary information with emphasis on Molecular genetics, Mendelian and non-Mendelian inheritance, and population and quantitative genetics. Laboratory experiences include classical and molecular genetics activities.

Business and Technology Education Courses

BTE 1000 Computer Keyboarding

(Previously BTE 100 Computer Keyboarding)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Grading: P/F only
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 1002 Keyboarding Applications I

(Previously BTE 102 Keyboarding Applications I)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Ability to Keyboard 20 WPM or faculty consent
Designed for students with minimal keyboarding skills. Introduces letters, tables, memos, and manuscripts. Emphasizes speed and accuracy.

BTE 1008 Ten-Key by Touch

(Previously BTE 108 Ten-Key by Touch)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces touch control of the ten-key pad. Emphasizes the development of speed and accuracy using proper technique.

BTE 1011 Keyboarding Speedbuilding I

(Previously BTE 111 Keyboarding Speedbuilding I)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Ability to keyboard by touch or faculty consent
Grading: P/F only
Designed to increase speed and improve accuracy in keyboarding on the PC through the use of correct techniques and concentrated effort.

BTE 1066 Business Editing Skills

(Previously BTE 166 Business Editing Skills)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides proofreading techniques and reviews spelling, punctuation, grammar, and word processing formats on various types of business documents and worksheets.

BTE 1087 Cooperative Education/Internship

(Previously BTE 187 Cooperative Education/Internship)
3 Credit Hours • 135 Contact Hours (Internship)
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.

Business Courses

BUS 1015 Introduction to Business

(Previously BUS 115 Introduction to Business)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1081 Internship

(Previously BUS 181 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Note: Must have Program Advisor's approval to enroll
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 three seminars during the semester of enrollment. Class utilizes cooperative work experience or project methods depending on the individual situation.

BUS 1082 Internship

(Previously BUS 182 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Provides continued instruction and work experience.

BUS 2003 Introduction to International Business

(Previously BUS 203 Introduction to International Business)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an understanding of the fundamental nature of international business. This course will cover the development of international business; theories and methods of international trade; financing mechanisms and terms used in export documentation and export finance; effects of economic, political and cultural environment on international business and trade; impact of geography on business transactions; impact of legal systems of international business; and developing an effective international marketing strategy.

BUS 2016 Legal Environment of Business

(Previously BUS 216 Legal Environment of Business)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2017 Business Communications & Report Writing

(Previously BUS 217 Business Communications& Report Writing)
3 Credit Hours • 45 Contact Hours (Lecture)
Emphasizes effective business writing and cover letters, memoranda, reports, application letters, and resumes. This course includes the fundamentals of business communication and an introduction to international communication.

BUS 2026 Business Statistics

(Previously BUS 226 Business Statistics)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on statistical study, sampling, organizing and visualizing data, descriptive statistics, probability, bi-nominal distributions,

normal distributions, confidence intervals, linear regression, and correlation. Intended for the business majors.

BUS 2081 Internship
(Previously BUS 281 Internship)
1-6 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Provides continued instruction and the opportunity for students 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.

BUS 2082 Internship
(Previously BUS 282 Internship)
1-6 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Provides continued instruction with the opportunity for students 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.

BUS 2087 Cooperative Education
(Previously BUS 287 Cooperative Education)
3 Credit Hours ● 45 Contact Hours (Co-operative Education)
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 workstations 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.

BUS 2089 Capstone
(Previously BUS 289 Capstone)
3 Credit Hours • 45 Contact Hours (Lecture)
Demonstrates the culmination of learning within a given program of study.

Carpentry Courses

CAR 1001 Basic Safety
(Previously CAR 101 Basic Safety)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
An overview of safety concerns and procedures in the construction field.

CAR 1002 Hand & Power Tools
(Previously CAR 102 Hand & Power Tools)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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 1003 Carpentry Basics
(Previously CAR 103 Carpentry Basics)
4 Credit Hours •90 Contact Hours (Lecture/Lab Combination)
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 1004 Floor & Wall Construction
(Previously CAR 104 Floor & Wall Construction)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers framing basics as well as the procedures for laying out and constructing a wood floor, and wall framing using common lumber as well as engineered building material. Includes instructions for selecting and installing metal framing for interior walls, exterior non-load bearing walls, and partitions.

CAR 1005 Job Site Layout & Blueprint Reading
(Previously CAR 105 Job Site Layout & Blueprint Reading)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces blue-print reading and how they apply to the construction site. Includes in-depth introduction to site layout (materials and methods).

CAR 1015 Form & Foundation Systems
(Previously CAR 115 Form & Foundation Systems)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Covers materials and methods for concrete forms and foundations. Includes various reinforcement methods such as re-bar and welded-wire fabric.

CAR 1023 Roof Framing
(Previously CAR 123 Roof Framing)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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.

CAR 1025 Roofing Materials & Methods
(Previously CAR 125 Roofing Materials & Methods)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Covers application techniques and estimation of asphalt and wood roofing products and accessories including gutters and flashing.

CAR 1030 Windows & Exterior Doors
(Previously CAR 130 Windows & Exterior Doors)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Describes the various types of windows, skylights, and exterior doors and provides instructions for installing them. Includes instructions for installing weather-stripping and locksets.

CAR 1034 Exterior Finishes & Trim
(Previously CAR 134 Exterior Finishes & Trim)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Utilizes hands-on techniques to illustrate exterior moisture, trim, and exterior door and window installation. Student will explore various residential materials and methods. Estimation of time and material will be discussed as well as general business practices.

CAR 1035 Thermal & Moisture Methods & Materials
(Previously CAR 135 Thermal & Moisture Methods & Materials)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Focuses on selection and installation of various types of insulating materials in walls, floors, and attics. Covers the uses and installation practices for vapor barriers and waterproofing materials.

CAR 1040 Stair Construction/Layout
(Previously CAR 140 Stair Construction/Layout)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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.

CAR 1046 Interior Finishes - Drywall Construction
(Previously CAR 146 Interior Finishes - Drywall Construction)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Covers the use of gypsum wall board and the techniques of concealing joints and fasteners, construction methods, estimation, and a variety of texture finishes.

CAR 1050 Interior Trim – General
(Previously CAR 150 Interior Trim – General)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Covers material choices and installation techniques of various interior trim, including interior doors, baseboard, and casement. Includes an overview of additional interior trim choices.

CAR 1060 Floor Finishes
(Previously CAR 160 Floor Finishes)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Covers installation and finishing of hardwood floors, laminate/engineered floors, and tile. Includes discussion on advantages and disadvantages of various choices available.

CAR 2080 Internship
(Previously CAR 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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 Courses

CHE 1005 Chemistry in Context with Lab: SC1
(Previously CHE 105 Chemistry in Context with Lab: SC1)
5 Credit Hours ● 90 Contact Hours (60 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
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 1011 Introduction to Chemistry I with Lab: SC1
(Previously CHE 101 Introduction to Chemistry I with Lab: SC1)
5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
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 1012 Introduction to Chemistry II with Lab: SC1
(Previously CHE 102 Introduction to Chemistry II with Lab: SC1)
5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)
Prerequisite: College Readiness in English, CHE 1011
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 1111 General College Chemistry I with Lab: SC1
(Previously CHE 111 General College Chemistry I with Lab: SC1)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: MAT 1340 or concurrent enrollment; CHE 1011 or one year of high school chemistry
Focuses on basic chemistry and measurement, matter, chemical formulas, reactions, equations, stoichiometry, and thermochemistry. 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 1112 General College Chemistry II with Lab: SC1
(Previously CHE 112 General College Chemistry II with Lab: SC1)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: CHE 1111, MAT 1340
Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, intermolecular forces, and electrochemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques.

CHE 2111 Organic Chemistry I with Lab
(Previously CHE 211 Organic Chemistry I with Lab)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: CHE 1112
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, and reaction mechanisms such as SN1, SN2, E1 and E2. Laboratory experiments demonstrate the above concepts plus the laboratory techniques associated with organic chemistry. UCCS transfer equivalent CHEM 3101/3102

CHE 2112 Organic Chemistry II with Lab
(Previously CHE 212 Organic Chemistry II with Lab)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: CHE 2111
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 CHE 2111 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. UCCS transfer equivalent CHEM 3111/3112

Chinese Courses

CHI 1011 Chinese Language I
(Previously CHI 111 Chinese Language I)
5 Credit Hours ● 75 Contact Hours (Lecture)
Focuses on the development of functional proficiency in listening, speaking, reading, and writing the Chinese language.

CHI 1012 Chinese Language II
(Previously CHI 112 Chinese Language II)
5 Credit Hours ● 75 Contact Hours (Lecture)
Prerequisite: CHI 1011
Continues Chinese Language I in the development of functional proficiency in listening, speaking, reading, and writing the Chinese language.

CHI 2011 Chinese Language III
(Previously CHI 211 Chinese Language III)
3 Credit Hours ● 45 Contact Hours (Lecture)
Prerequisite: CHI 1012
Continues Chinese Language II in the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing and cultural competency in the

Chinese language. This course is conducted predominantly in Chinese.

College Composition and Reading Course

See ENG 0094 Studio 121
(Previously CCR 094 Studio 121)

Communication Courses

COM 1105 Career Communication
3 Credit Hours • 45 Contact Hours (Lecture)
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.

COM 1150 Public Speaking
(Previously COM 115 Public Speaking)
3 Credit Hours • 45 Contact Hours (Lecture)
Combines the basic theory of speech communication with public speech performance skills. Emphasis is on speech delivery, preparation, organization, support, and audience analysis and delivery.

COM 1250 Interpersonal Communication: SS3
(Previously COM 125 Interpersonal Communication: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

COM 1260 Communication in Healthcare
3 Credit Hours • 45 Contact Hours (Lecture)
Covers interactive concerns in settings related to patient-client care. This class includes discussions of diverse cultures, client interaction, and family/caregiver issues. The course addresses the concerns of attitude, office politics, teamwork, self-initiative, and conflict management as specifically experienced in the patient-as-client setting.

COM 1300 Communication & Popular Culture: AH1
(Previously COM 130 Communication & Popular Culture: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces four key theoretical models for examining popular culture: Narrative Theory, Rhetorical Theory, Gender Theory, and Critical Race Theory. Emphasis is on popular American media texts, including books, comics/graphic novels, films, music, and television.

COM 2005 Voice & Diction
(Previously COM 205 Voice and Diction)
3 Credit Hours • 45 Contact Hours (Lecture)
Studies the physiological production of the speaking voice and methods for improving the quality of the spoken word in general American speech.

COM 2060 Listening in a Workplace Communication Setting
(Previously COM 260 Listening in a Workplace Communication Setting)
1 Credit Hour ● 15 Contact Hours (Lecture)
Focuses on understanding and developing high-level listening skills. Through lecture and interactive exercises, students learn the fundamentals of effective listening.

COM 2063 Conflict Resolution
(Previously COM 263 Conflict Resolution)
1 Credit Hour • 15 Contact Hours (Lecture)
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 2069 Leadership
(Previously COM 269 Leadership)
1 Credit Hour • 15 Contact Hours (Lecture)
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 2140 Natural Resource Interpretation & Communication
(Previously COM 214 Natural Resource Interpretation & Communication)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides communication and interpretation training for those required to interpret natural resource data about historical characters and times for the public. The course focuses on experiential skill development in the area of educational interpretation including, but not limited to, in-class and on-site interpretation of historical, geological, zoological, and other environmental topics and sites. It also stresses the preparation of educational presentations aimed at all levels of learners from pre-K through mature adulthood using various presentation techniques including, but not limited to, visual aids, props, dramatic performance, and puppetry.

COM 2160 Advanced Public Speaking
(Previously COM 216 Advanced Public Speaking)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: COM 1150
Emphasizes the continued study of rhetorical theory and analysis as it relates to public speaking.

COM 2200 Interpersonal Communication
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the study of intrapersonal communication (communication with self) and emphasizes understanding of one's past experiences in learning how to set goals, accomplish life objectives, communicate with self, and plan for the future. This course includes individualized research, journaling, creativity explorations, lessons involving an individual's past and present hopes and dreams, goal setting for the future, positive self-exploration techniques and styles, networking, personal assessments, and creativity enhancement.

COM 2220 Group Communication: SS3
(Previously COM 217 Group Communication: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines group communication theories with an emphasis on leadership and group behaviors. The course provides opportunities for group participation.

COM 2250 Organizational Communication
(Previously COM 225 Organizational Communication)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Students encouraged to take COM 1150 and/or have organizational setting experience.
This course focuses on the role of communication theory and skills as they apply to business and organizational settings. Topics include organizational and leadership models, effective communication skills with peers, superiors, and subordinates,

environmental factors impacting communication, and interviewing skills.

COM 2270 Gender Communication
(Previously COM 215 Gender Communication)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2300 Intercultural Communication: SS3
(Previously COM 220 Intercultural Communication: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

COM 2400 Argumentation & Debate
(Previously COM 230 Argumentation and Debate)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the student to the theory of argumentation, including reasoning, evidence, refutation, critical thinking, and extemporaneous speaking. The course includes practice in preparation and oral analysis of selected arguments and styles of debating.

Computer Aided Drafting Courses

CAD 1100 Print Reading for Computer Aided Drafting
(Previously CAD 100 Print Reading for Computer Aided Drafting)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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.

CAD 1101 Computer Aided Drafting/2D I
(Previously CAD 101 Computer Aided Drafting/2D I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1100 or concurrent enrollment
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 1102 Computer Aided Drafting/2D II
(Previously CAD 102 Computer Aided Drafting/2D II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1101
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 1104 CAD for Architecture
(Previously CAD 104 CAD for Architecture)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1220 or concurrent enrollment
Focuses on basic to intermediate 2D architectural computer aided drafting skills using the AutoCAD software. Includes creating architectural templates, annotations, tables, annotation styles, dimensions styles and architectural standards. This course also covers manipulation of lines, plines, blocks, xrefs, and raster images to produce construction document set.

CAD 1105 AutoCAD for Interiors
(Previously CAD 105 AutoCAD for Interiors)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: IND 1100
Focuses on basic to intermediate 2D computer aided drafting interior design skills using the AutoCAD software. Includes templates, linetype and lineweights, layer usage, drawing & editing geometric objects, text applications, basic to advanced dimensioning skills. Creating and editing blocks, hatching, layouts/paper space and multiple viewports, external references, attributes, raster images, & printing/plotting.

CAD 1110 Sketchup
(Previously CAD 115 Sketchup)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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.

CAD 2080 Internship
(Previously CAD 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Prerequisite: CAD 1100, CAD 1101, CAD 1102
Note: Must have faculty consent to enroll
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 direct guidance of the instructor.

CAD 2205 Advanced CAD for Interiors
(Previously CAD 215 Advanced CAD for Interiors)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105
Introduces skills to create 3D visualization models and presentations for Interior Design applications, to enhance the students design process and the ability to portray design concepts. In addition, topics include training in visualization of complex spatial designs as a means of enhancing the function and quality of interior spaces and interior furnishing components. This course includes advanced 3D computer-aided drafting software concepts to create rendered interior spaces.

CAD 2220 Revit Architecture
(Previously CAD 224 Revit Architecture)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: AEC 1200, AEC 1220, AEC 1231, AEC 1520
Introduces students to the Autodesk Revit Architecture software. Examines the Building Information Modeling approach to 2D and 3D architectural construction documents. Covers the creation of floorplans, elevations, sections, 3D models, perspective Renderings and Walkthroughs with this software application.

CAD 2221 Advanced Revit Architecture
(Previously CAD 227 Advanced Revit Architecture)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2220
Focuses on the advanced applications of the Autodesk Revit Architecture software. Includes Family Editing, topographic Site Plans, Worksharing, Phases, Key Schedules, custom Annotation, Templates and presentation techniques.

CAD 2227 Revit for Interiors
(Previously CAD 230 Revit for Interiors)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105
Introduces Autodesk Revit Architecture software, specific to interior design and interior architecture. Topics include the Revit user interface and the use of Building Information Models (BIM) to create both 2-dimensional (2D) construction documentation (CD) sets and 3-dimensional (3D) interior design concepts and presentations including interior finishes, equipment, and furnishings.

CAD 2228 Advanced Revit for Interiors
(Previously CAD 234 Advanced Revit for Interiors)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2227
Focuses on the advanced applications of Autodesk Revit Architecture software, specific to interior design and interior architecture. Emphasis is placed on producing photorealistic 3-dimensional (3D) renderings and models that are specific to interior building elements and spaces.

CAD 2455 SolidWorks/Mechanical
(Previously CAD 255 SolidWorks/Mechanical)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1100 or MAC 1002
Introduces parametric feature-based solid modeling 3D concepts to build confidence in 3D thinking and progresses to three-dimensional parameters. This course provides instruction on how to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models.

CAD 2456 Advanced SolidWorks
(Previously CAD 259 Advanced SolidWorks)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2455
Introduces advanced applications of the 3D parametric software SolidWorks. Focuses include management of design data, advanced assembly, analysis of model creations, documentation of bill of materials and parts lists, rendering, animation, and dynamic simulation and testing a model assembly.

CAD 2458 Introduction to Creo Basics
(Previously CAD 153 Introduction to Creo Basics)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1101
Introduces basic Creo software, a 3D Parametric Solid modeling program, and its operations such as part, assembly, and drawing creation. The course includes hot to construct, modify, and manage complex parts in 3D space as well as produce 2D drawings from the 3D models.

CAD 2459 Advanced Creo
(Previously CAD 253 Advanced Creo)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2458
Introduces advanced applications of the 3D parametric software Creo. This course 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 2460 Inventor I/ Autodesk
(Previously CAD 240 Inventor I/ Autodesk)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces basic Inventor applications of non-parametric modeling, three-dimensional parametric modeling and visualization & animation of 3D modeling. The student learns to construct, modify, and manage complex models in 3D space. Produces 2D drawing assemblies from 3D models.

CAD 2540 3DS Max
(Previously CAD 219 3DS Max)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 2660 3D Printing/Additive Manufacturing
(Previously CAD 262 3D Printing/Additive Manufacturing)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2455, CAD 2456
Provides the student with the ability to blend the virtual and real design worlds together through the use of 3D CAD Modeling, and 3D Printing.

CAD 2661 Advanced 3D Printing
(Previously CAD 266 Advanced 3D Printing)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2456, CAD 2459
Provides the student with the ability to create Advanced 3D solid models using 3D printing and 3D Scanning technology and various CAD software programs.

CAD 2667 Augmented Reality & Virtual Reality (AR/VR) in CAD
(Previously CAD 269 Augmented Reality & Virtual Reality (AR/VR) in CAD)
1 Credit Hour ● 22.5 Contact Hours (Lecture/Lab Combination)
Note: Instructor Signature Required
Explores the current and emerging technology and concepts involving augmented and virtual reality (AR/VR) in the computer-aided drafting and design industries. This course presents AR and VR content for three-dimensional presentation.

Computer and Networking Technology Courses

CNG 1001 Networking Fundamentals
(Previously CNG 101 Networking Fundamentals)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces network fundamentals using the OSI (Open Systems Interconnection) model and TCP/IP (Transmission Control Protocol/Internet Protocol) suite, fundamentals of Ethernet, IP addressing, and building simple LANs (Local Area Networks).

CNG 1002 Local Area Networks
(Previously CNG 102 Local Area Networks)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces Local Area Networking. Focuses on discussions and demonstrations of planning, installing, and supporting networks.

CNG 1004 Introduction to TCP/IP
(Previously CNG 104 Introduction to TCP/IP)
3 Credit Hours • 45 Contact Hours (Lecture)
Outlines four important networking architectures in corporate environments today - TCP/IP, SNA, AppleTalk, and DNA. Focuses

on the major components and functions of each of these architectures as well as methods used to connect different architectures. Provides students with concepts that are important to the field of systems integration, as well as a conceptual basis for understanding network architectures.

CNG 1008 Network Analysis & Design
(Previously CNG 108 Network Analysis & Design)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides advanced instruction for networking professionals and students who grasp the basic concepts of networking but would like to understand methods used to analyze, design, and manage LAN's point-to-point networks. Exercises are geared toward learning techniques used to design and analyze networks.

CNG 1020 A+ Certification Preparation
(Previously CNG 120 A+ Certification Preparation)
4 Credit Hours • 60 Contact Hours (Lecture)
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 1021 Computer Technician I: A+
(Previously CNG 121 Computer Technician I: A+)
4 Credit Hours • 60 Contact Hours (Lecture)
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 1022 Computer Technician II: A+
(Previously CNG 122 Computer Technician II: A+)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: CNG 1021 or concurrent enrollment
Provides students with an in-depth look at Operating System support, maintenance, and troubleshooting, and an overview of hardware, 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 Windows 2000 and/or XP, including using common GUI and command line tools, registry editing, System backup and Recovery, Networking, and O.S. Troubleshooting. This course helps prepare you for the CompTIA A+ 602 Exam.

CNG 1024 Networking I: Network +
3 Credit Hours • 45 Contact Hours (Lecture)
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 1031 Principles of Information Assurance
3 Credit Hours • 45 Contact Hours (Lecture)
Provides skills and knowledge required to survey key issues associated with protecting information assets, determine the levels of protection and response to security incidents, and design a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. Students learn to inspect and protect information assets, detect, and react to threats to information assets, and examine pre- and post-incident procedures, and technical and managerial responses. Students learn about information security planning and staffing functions.

CNG 1032 Network Security Fundamentals
(Previously CNG 132 Network Security Fundamentals)
3 Credit Hours • 45 Contact Hours (Lecture)
Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, e-mail, 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 1042 Introduction to Cloud Computing Concepts
(Previously CNG 142 Introduction to Cloud Computing Concepts)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2002 Unix/Linux Server Admin
(Previously CNG 202 Unix/Linux Server Admin)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides students with the knowledge and skills required to configure, administer, and secure data, users and services in a UNIX or Linux server environment. Emphasis will be on command-line interface (CLI). Topics will also include system monitoring, performance tuning, troubleshooting and interoperability with Windows servers and clients.

CNG 2012 Configuring Windows Server
(Previously CNG 212 Configuring Windows Server)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: CNG 1001 or CNG 1024
Provides students with the knowledge, skills, and abilities to install, configure and safely administer a Microsoft Windows Server. This class prepares the student for current industry certification.

CNG 2042 Cloud Computing
(Previously CNG 242 Cloud Computing)
3 Credit Hours • 45 Contact Hours (Lecture)
Installs, configures, and manages a cloud environment. Builds on knowledge of hypervisor and virtual machine environments.

CNG 2043 Cloud Security and Cyber Law
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CNG 1032 or CNG 1042
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 2056 Vulnerability Assessment Level I
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CNG 1032 or CNG 2001
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 2057 Network Defense & Counter Measures
(Previously CNG 257 Network Defense & Counter Measures)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CNG 1032

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 2059 Enterprise Security
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: CNG 2056 or concurrent enrollment, or CNG 2057
This course challenges students to combine the skills learned in previous coursework (or work experience) and apply them in whole to a mock business IT environment. Students will work in their own virtualized server environment, complete with servers, routers, firewalls, VPN, IDS/IPS, wireless and other current technologies to develop a security policy and framework using risk analysis and risk management techniques.

CNG 2060 Cisco Network Associate I
(Previously CNG 260 Cisco Network Associate I)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: CNG 1001 or CNG 1024
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 2061 Cisco Network Associate II
(Previously CNG 261 Cisco Network Associate II)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: CNG 2060
Introduces the architecture, components, and operations of routers and switches.

CNG 2062 Cisco Network Associate III
(Previously CNG 262 Cisco Network Associate III)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: CNG 2061
Explores the architecture, components and operations of routers and switches in a large and more complex network with advanced functionality.

CNG 2063 Cisco Network Associate IV
(Previously CNG 263 Cisco Network Associate IV)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: CNG 2062
Implements WAN technologies and network services required by converged applications in a complex switched and routed networks.

CNG 2070 Cisco Certified Network Associate, Security
(Previously CNG 270 Cisco Certified Network Associate, Security)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: CNG 1032, CNG 2061
Provides core and advanced security concepts and skills for Cisco networks.

CNG 2080 Internship
(Previously CNG 280 Internship)
3 Credit Hours ● 135 Contact Hours (Internship)
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.

Computer Information Systems Courses

CIS 1002 Computer Assistive Technology
(Previously CIS 102 Computer Assistive Technology)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Must have faculty consent to enroll
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 1004 Word Processing with Assistive Technology
(Previously CIS 104 Word Processing with Assistive Technology)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Must have faculty consent to enroll
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 1010 Introduction to Computing Technology: (device)
(Previously CIS 110 Introduction to Computing Technology: (device))
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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 1015 Introduction to Computer Information Systems
(Previously CIS 115 Introduction to Computer Information Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an overview of computer information systems and their role in society. This course emphasizes terminology and the identification of computer components and systems used in personal and business environments. This course discusses the evaluation of systems and measures that can be applied to protect them.

CIS 1018 Introduction to PC Applications
(Previously CIS 118 Introduction to PC Applications)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1024 Introduction to Operating Systems
(Previously CIS 124 Introduction to Operating Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces concepts, terminology, and hands-on skills in the use of DOS and Windows. Emphasizes navigation, file manipulation, file creation, and troubleshooting.

CIS 1028 Operating System: Using _____
(Previously CIS 128 Operating System: Using _____)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Adequate keyboarding skill is essential if you wish to complete assignments in a timely, efficient manner. Students may wish to enroll in BTE 1000 Computer Keyboarding to develop keyboarding skill.
Introduces the purpose, function, and configuration of an operating system. Skills covered will include the ability to write

scripts, modify configurations, modify environment settings, and configure interfaces.

CIS 1030 Introduction to Internet
(Previously CIS 130 Introduction to Internet)
1 Credit Hour • 15 Contact Hours (Lecture)
Enhances the student's knowledge of the Internet and its resources. Individuals learn terminology in dealing with the Internet. Includes privacy and copyright issues with information retrieved from the Internet. Students experience the use of e-commerce, multimedia, and e-mail. Explores searching the Internet and credibility of information obtained with searches.

CIS 1035 Complete Word Processing (Software Package)
(Previously CIS 135 Complete Word Processing (Software Package))
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces basics of word processing software to create, edit, format, and print documents as well as advanced features to enhance documents. This course includes working with images, creating/using styles, formatting multi-page documents using advanced features of headers/footers and section breaks, integrating software to create and format tables and charts, using mail merge, and creating documents with columns.

CIS 1040 Microsoft Outlook
(Previously CIS 140 Microsoft Outlook)
1 Credit Hour • 15 Contact Hours (Lecture)
Introduces the functions used in Microsoft Outlook including e-mail messages, calendar, contacts, tasks, journals, and notes.

CIS 1045 Introduction to Desktop Database
(Previously CIS 145 Introduction to Desktop Database)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores an array of database skills. Includes table, query, form, and report creation and modification. Also includes application integration.

CIS 1055 Complete Spreadsheets: (Software Package)
(Previously CIS 155 Complete Spreadsheets: (Software Package))
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces basic to advanced features of spreadsheet software to design and create accurate, professional worksheets for use in business and industry. The course includes entering data, creating formulas, professional formatting, creating charts, creating, sorting and filtering tables, creating and using templates, applying built-in functions, creating pivot tables, applying "what-if analysis" with data tables, creating macros, and using solver features.

CIS 1065 Complete Presentation Graphics
(Previously CIS 165 Complete Presentation Graphics)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the creation of presentation slides utilizing graphics, visual elements, and media. Utilizes software to display information and communicate a message. Emphasizes proper presentation skills and techniques.

CIS 2002 Automated Project Management
(Previously CIS 202 Automated Project Management)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CIS 1018 or CSC 1005, or CIS 1035 and CIS 1055
Provides an in-depth exploration of project management concepts and techniques. This course uses software to create project plans and manage projects. Critical thinking, planning, and communication to achieve a project goal are emphasized.

CIS 2023 Linux
(Previously CIS 223 Linux)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to the concepts of installing, configuring, and managing the Linux operating system. Topics covered include working with various desktops, use of file system commands, and management of user and group permissions.

CIS 2040 Database Design & Development
(Previously CIS 240 Database Design & Development)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2043 Introduction to Structured Query Language (SQL)
(Previously CIS 243 Introduction to Structured Query Language (SQL))
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CIS 1045 or CIS 2040
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 2063 PC Help Desk Skills
(Previously CIS 263 PC Help Desk Skills)
3 Credit Hours • 45 Contact Hours (Lecture)
Enables the student to understand and develop appropriate help-desk techniques. Includes roles of help-desk personnel, and how to troubleshoot hardware and software problems.

CIS 2067 Management of Information Systems
(Previously CIS 267 Management of Information Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the concepts and techniques of managing computer-based information resources. Includes hardware, software, personnel, control techniques, and the placement and integration of information systems resources within the organization.

CIS 2068 Systems Analysis & Design I
(Previously CIS 268 Systems Analysis & Design I)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2080 Internship
(Previously CIS 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
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.

CIS 2088 Practicum
(Previously CIS 288 Practicum)
1 Credit Hour • 45 Contact Hours (Practicum)
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.

CIS 2089 Capstone
(Previously CIS 289 Capstone)
3 Credit Hours • 45 Contact Hours (Lecture)
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 Science Courses

CSC 1005 Computer Literacy
(Previously CSC 105 Computer Literacy)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to current technologies. Special focus on ensuring students become technologically competent and computer literate. Emphasis is placed on technology fundamentals and terminology through the evaluation of hardware and software. Provides students with a working knowledge of operating system use, file management and security. Introduces the internet as a research and communication tool. Application software is covered to ensure the fundamental computer skills for personal, academic, and business use are obtained.

CSC 1019 Introduction to Programming: (Programming Language)
(Previously CSC 119 Introduction to Programming: (Programming Language)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: College Ready for Algebra
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 1020 Problem Solving with (Software Package)
(Previously CSC 120 Problem Solving with (Software Package)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
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 1026 Game Design & Development
(Previously CSC 126 Game Design & Development)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Combines problem-solving techniques with computer game design and implementation to introduce the student to basic gaming and computer science concepts. Students design, implement, and test computer games using software that allows for basic game creation through a wide variety of game creation tools; no prior programming experience is required.

CSC 1029 Introduction to Secure Coding
(Previously CSC 129 Introduction to Secure Coding)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: CSC 1060 or concurrent enrollment
Focuses on introduction to secure coding. Emphasizes concepts, principles, 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 1060 Computer Science I: (Language)
(Previously CSC 160 Computer Science I: (Language))
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: CSC 1019 or CSC 1020 or MAT 1340
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 1061 Computer Science II: (Language)
(Previously CSC 161 Computer Science II: (Language))
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: CSC 1060
Continues algorithm development and problem-solving techniques not covered in Computer Science I using a high-level programming language. Students are able to gain experience in the use of data structures and the design and implementation of larger software projects. Intensive computer laboratory experience is required for this course.

CSC 2017 Advanced Python Programming
(Previously CSC 217 Advanced Python Programming)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: CSC 1019, MAT 1340, or CSC 1060
Continues program development and problem solving not covered in CSC 1019: Introduction to Programming. Students will create larger programs in the areas of advanced expression, iterator objects, parsing, and GUI applications.

CSC 2020 Introduction to Microsoft Visual Basic.NET
(Previously CSC 220 Introduction to Microsoft Visual Basic.NET)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Provides students with the knowledge and skills needed to develop applications in Microsoft Visual Basic .NET for the Microsoft .NET platform. Focuses on user interfaces, program structure, language syntax, and implementation details. This is the first course in the Visual Basic .NET curriculum and serves as the entry point for other .NET courses.

CSC 2025 Computer Architecture/Assembly Language Programming
(Previously CSC 225 Computer Architecture/Assembly Language Programming)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: CSC 1061 or concurrent enrollment
Covers how a computer operates and the relationship between machine code and the primary computer components. The course explores the design of the processor, registers, memory, and various types of storage. Assembly language is used for computer processes commands and how programming languages use memory addresses. Overview of architecture that is in development will be discussed.

CSC 2030 C Programming: Platform
(Previously CSC 230 C Programming: Platform)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: CSC 1019, or CSC 1060 or concurrent enrollment
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 2033 Object-Oriented Programming: (Language)
(Previously CSC 233 Object-Oriented Programming: (Language))
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: CSC 1061
Provides students will the skills in Programming in an OOP language at an Advanced Level. It covers all syntactical components of an object-Oriented language. Emphasizes inheritance, overloading, and polymorphism. Focuses on writing clear, properly structured, and well documented programs using Object-Oriented methodology. Large programs using multiple data structures will be written, preferably working in large groups.

CSC 2036 C# Programming
(Previously CSC 236 C# Programming)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: CSC 1060
Introduces the C# programming language. This course covers all syntactical components of the language including arrays, structures, methods, and classes. Content will focus on writing clear, properly structured, and well-documented programs using object-oriented methodology, .NET Framework, and the Visual Studio environment.

CSC 2040 Java Programming
(Previously CSC 240 Java Programming)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: CSC 1060 or CSC 2017
Introduces the Java Platform, Standard Edition (Java SE), to develop Graphical User Interface (GUI) applications. Language constructs will include loops, conditionals, methods, and arrays. The code will incorporate event and exception handling, File I/O, and Object-Oriented Programming (OOP) concepts.

CSC 2041 Advanced Java Programming
(Previously CSC 241 Advanced Java Programming)
3 Credit Hour ● 45 Contact Hours (Lecture)
Prerequisite: CSC 1060 or CSC 2040
Covers advanced programming topics including multi-threading, network/internet programming, database programming, and JavaBeans. This course focuses on writing Java Enterprise Edition (Java EE) complex programs.

CSC 2045 Secure Software Development: (Language)
(Previously CSC 245 Secure Software Development: (Language))
3 Credit Hours ● 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: CSC 1029; CSC 1061 or concurrent enrollment
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 2046 Mobile App Development: (Platform)
(Previously CSC 246 Mobile App Development: (Platform))
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Prerequisite: CSC 1060
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 2067 Object-Oriented Analysis & Design
(Previously CSC 267 Object-Oriented Analysis & Design)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2080 Internship
(Previously CSC 280 Internship)
2 Credit Hours ● 90 Contact Hours (Internship)
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.

Computer Web-Based Courses

CWB 1010 Introduction to Web Authoring
(Previously CWB 110 Introduction to Web Authoring)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores the complete set of web authoring skills using HTML and/or other languages. The course covers links, backgrounds, controlling text and graphic placement, tables, image maps, and forms.

CWB 1030 Web Editing Tools
(Previously CWB 130 Web Editing Tools)
3 Credit Hours • 45 Contact Hours (Lecture)
Teaches the use of tools for Web page design and development. These tools are designed to make the creation of Web pages easy and consistent. With the use of editing tools, students will be able to build Web pages 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 Web site once it is created.

CWB 2005 Client-side Scripting: (Software)
(Previously CWB 205 Client-side Scripting: (Software))
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CSC 1019, CWB 1010
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 2021 Technology Foundations for E-Commerce
(Previously CWB 221 Technology Foundations for E-Commerce)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CWB 1010
Provides the student with thorough knowledge of e-commerce architecture, relational database management systems, and HTML and Network fundamentals.

Construction Technology Courses

CON 1020 Building Materials & Environmental Impact
(Previously CON 120 Building Materials & Environmental Impact)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1028 Cost Estimation
(Previously CON 128 Cost Estimation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Provides an overview of the estimation process. Bid requirements, and package are discussed along with an introduction to the CSI divisions.

CON 1030 Blueprint Reading
(Previously CON 130 Blueprint Reading)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Focuses on the techniques for reading and using blueprints and specifications with an emphasis placed on those drawing and types of information that are relevant to the construction craft.

CON 1038 Plumbing & Electric Fundamentals
(Previously CON 138 Plumbing & Electric Fundamentals)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the fundamentals of plumbing and electric principles and practices in residential application to include safety, print reading and specification, codes, tools, equipment, materials, fixtures, processes, organizations, and career opportunities. It is intended to familiarize the student with entry level terms and processes of both trades.

CON 1042 International Residential Code (IRC)
(Previously CON 142 International Residential Code (IRC))
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers requirements of the major systems of residential building construction (other than commercial). This course includes administration, definitions, building planning, foundations, floors, wall construction, wall covering, roof-ceiling construction, roof assemblies, chimneys and fireplaces, energy efficiency, mechanical systems, plumbing systems, electrical systems, and referenced standards.

CON 1045 Construction Project Management
(Previously CON 145 Construction Project Management)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the principles of project planning, scheduling, estimating and management. The participant learns the basic skills required to supervise personnel, with the introduction of technologies as they become commonly accepted.

CON 1046 Construction Project Scheduling
(Previously CON 146 Construction Project Scheduling)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the principles of project planning and scheduling. Techniques and tools for effective scheduling are introduced and investigated. The participant learns the basic skills required to supervise personnel. New technologies will be introduced as they become commonly accepted. Several case studies are included.

CON 1047 Field Engineering I
(Previously CON 147 Field Engineering I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides students with an understanding of the basic skills required to perform entry level field engineering tasks in the construction industry. Course focuses on providing students with an opportunity to operate surveying equipment currently in use in the field; perform data collection and record keeping according to industry standards; and apply basic math and measuring techniques to structure and site layout tasks.

CON 1052 National Center for Construction Education & Research Masonry I
(Previously CON 152 National Center for Construction Education & Research Masonry I)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the NCCER Masonry level one for the construction trades to include the fundamentals of basic masonry materials, equipment and tools, mathematical concepts used to calculate masonry units, specifications, codes, mortar, installation techniques, safety, and the career of masonry.

CON 1053 National Center for Construction Education & Research Masonry II
(Previously CON 153 National Center for Construction Education & Research Masonry II)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the NCCER Masonry level two for the construction trades to include residential plans and drawing interpretation, residential masonry, reinforced masonry, masonry openings and metal work, advanced laying techniques, effects of climate on masonry, and construction inspection and quality control.

CON 1054 National Center for Construction Education & Research Masonry III
(Previously CON 154 National Center for Construction Education & Research Masonry III)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the NCCER Masonry level three for the construction trades to include elevated masonry, specialized materials and techniques, repair and restoration, commercial drawings, estimating, site layout, distance measurement and leveling, and stone masonry.

CON 1055 National Center for Construction Education & Research Masonry IV
(Previously CON 155 National Center for Construction Education & Research Masonry IV)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
NCCER Masonry level four requirements for the construction trades to include residential and commercial drawings, specialized materials, and techniques for arches, spiral piers, reinforced masonry, custom masonry, quoined corners, and fireplaces and chimneys. This course covers the coefficient of expansion of materials, vapor barrier and flashing, and the fundamentals of crew leadership and project management.

CON 1057 National Center for Construction Education & Research Core
(Previously CON 157 National Center for Construction Education & Research Core)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Introduces the fundamentals for all construction trades to include basic construction site safety, introduction to construction math, introduction to power tools, introduction to construction drawings, basic communication skills, basic employability skills, and introduction to material handling. This course is designed as an entry level course for any of the building trades program specialties.

CON 1058 National Center for Construction Education & Research Carpentry I
(Previously CON 158 National Center for Construction Education & Research Carpentry I)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces foundational level carpentry skills, basic residential construction systems, the importance of personal and workplace safety, and the role of carpenters within the construction industry.

CON 1059 National Center for Construction Education & Research Carpentry II
(Previously CON 159 National Center for Construction Education & Research Carpentry II)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the NCCER Carpentry level two for the construction trades to include commercial drawings, cold-formed steel framing, exterior finishing, thermal and moisture protection, roofing applications, doors and door hardware, drywall installation, drywall finishing, suspended ceilings, window, door, floor, ceiling trim, and cabinet installation.

CON 1060 National Center for Construction Education & Research Carpentry III
(Previously CON 160 National Center for Construction Education & Research Carpentry III)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the NCCER Carpentry level three for the construction trades to include commercial properties of concrete, rigging equipment, rigging practices, trenching and excavating, reinforcing concrete, foundations and slabs-on-grade, vertical formwork, horizontal formwork, handling and placing concrete, and tilt-up wall systems.

CON 1061 National Center for Construction Education & Research Carpentry IV
(Previously CON 161 National Center for Construction Education & Research Carpentry IV)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the NCCER Carpentry level four for the construction trades to include site layout differential leveling, site layout angular and distance measurement, advanced roof systems, advanced wall systems, advanced stair systems, introduction to construction equipment, introduction to oxyfuel cutting and arc welding, site preparation, and fundamentals of crew leadership. This course is designed as the fourth level of the building trades carpentry program.

CON 1062 National Center for Construction Education & Research Electrical I
(Previously CON 162 National Center for Construction Education & Research Electrical I)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the fundamentals of electrical trades and practices in residential application. Topics in this course include orientation to the electrical trade, electrical safety, basic electrical circuits, electrical theory, introduction to the National Electrical Code, device boxes, raceways and fittings, conductors and cables, basic electrical construction drawings, residential electrical services, electrical test equipment, and basic installation techniques.

CON 1063 National Center for Construction Education & Research Electrical II
(Previously CON 163 National Center for Construction Education & Research Electrical II)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the fundamentals of electrical trades and practices in residential application to include alternating current, theory and application, electric lighting, conduit bending, pull and junction boxes, conductor installations, cable tray, conductor terminations and splices, grounding and bonding, circuit breakers and fuses, and control systems and fundamental concepts.

CON 1064 National Center for Construction Education & Research Electrical III
(Previously CON 164 National Center for Construction Education & Research Electrical III)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the fundamentals of electrical trades and practices in residential application. Topics covered include load calculations for branch and feeder circuits, conductor selection and calculations for installation, practical applications of lighting, hazardous locations, overcurrent protection, distribution equipment, transformers, commercial electrical services, motor calculations, voice, data, and video systems, and motor controls.

CON 1065 National Center for Construction Education & Research Electrical IV
(Previously CON 165 National Center for Construction Education & Research Electrical IV)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces advanced practices in residential and commercial applications for the electrical trades professional. Topics covered include load calculations for feeders and services, applications specific to health care facilities, standby and emergency systems, basic electronic theory, considerations for fire alarm systems, installing specialty transformers, advanced controls, Heating, Ventilation, and Air Conditioning (HVAC) controls, heat tracing and freeze protection, motor operation and maintenance, medium-voltage terminations/splices, and applications for special locations.

CON 1066 National Center for Construction Education & Research Plumbing I
(Previously CON 166 National Center for Construction Education & Research Plumbing I)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces common types of piping, their proper fitting, fixtures, and distribution systems. Topics include the plumbing trade and construction drawings; plastic, copper, cast-iron, and carbon steel piping; fixtures and faucets; introduction to Drainage, Waste, and Vent (DWV) systems; and water distribution systems.

CON 1067 National Center for Construction Education & Research Plumbing II
(Previously CON 167 National Center for Construction Education & Research Plumbing II)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Builds on concepts and practices for plumbing to include offsets around obstructions, reading commercial drawings, installing and testing Drainage, Waste, and Vent (DWV) piping systems, installing roof, floor, area drains, servicing various types of valves, installation of fixtures, faucets, hot water systems, and a discussion on fuel systems.

CON 1068 National Center for Construction Education & Research Plumbing III
(Previously CON 168 National Center for Construction Education & Research Plumbing III)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Introduces the fundamentals of plumbing trades and practices in residential application to include applied math, sizing and protecting the water supply system, potable water Supply treatment, types of venting, sizing, Drain, Waste, and Vent (DWV) and storm systems, sewage sumps and sump pump, corrosive-resistant waste piping, compressed air, and service plumbing.

CON 1069 National Center for Construction Education & Research Plumbing IV
(Previously CON 169 National Center for Construction Education & Research Plumbing IV)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Teaches concepts and practices essential to competitive and successful plumbing businesses. This course also includes business principles for plumbers, introductory skills for the crew leader, water pressure booster and recirculation systems, indirect and special waste, hydronic and solar heating systems, and practices for plumbing.

CON 2007 Light Construction Equipment
(Previously CON 207 Light Construction Equipment)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers construction equipment, and cost choices based upon size of job vs. cost of equipment rental or ownership. Course covers maintenance issues associated with various equipment and specialization.

CON 2043 Project Supervision
(Previously CON 243 Project Supervision)
4 Credit Hours • 60 Contact Hours (Lecture)
Examines the role of construction supervisors in the field of construction. The topics include problem solving, safety responsibilities, quality control, project planning, resource control, and the importance of construction documents.

CON 2045 Project Management
(Previously CON 245 Project Management)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the principles of project planning, scheduling, estimating and management. Emphasizes the basic skills required to supervise personnel. Includes case studies.

CON 2046 Fundamentals of Crew Leadership
(Previously CON 246 Fundamentals of Crew Leadership)
1 Credit Hour • 15 Contact Hours (Lecture)
Examines the role of construction supervisors in the field of construction. The topics include problem solving, safety responsibilities, quality control, project planning, resource control, and the importance of construction documents.

CON 2080 Internship
(Previously CON 280 Internship)
0-12 Credit Hours • 45 Contact Hours per Credit Hour (Internship)
Note: 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.

CON 2089 Capstone: Construction
(Previously CON 289 Capstone: Construction)
0-12 Credit Hours • 45 Contact Hours per Credit Hour (Internship)
Note: Department Chair Approval
Provides a demonstrated culmination of learning within a given program of study.

Counseling Courses

CSL 2050 Motivational Interviewing I
(Previously CSL 250 Motivational Interviewing I)
1.5 Credit Hours • 22.5 Contact Hours (Lecture)
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 2054 Trauma Informed Care
(Previously CSL 254 Trauma Informed Care)
1 Credit Hours • 15 Contact Hours (Lecture)
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 2065 Culturally Informed Treatment
(Previously CSL 265 Culturally Informed Treatment)
1 Credit Hours • 15 Contact Hours (Lecture)
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.

Criminal Justice Courses

CRJ 1010 Introduction to Criminal Justice: SS3
(Previously CRJ 110 Introduction to Criminal Justice: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

CRJ 1011 Substantive Criminal Law
(Previously CRJ 111 Substantive Criminal Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Teaches legal definitions of crime, purposes and functions of the law, historical foundations, and the limits of the criminal law.

CRJ 1012 Procedural Criminal Law
(Previously CRJ 112 Procedural Criminal Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers constitutional and procedural considerations affecting arrest, search and seizure, post-conviction treatment, origin, development, philosophy, and constitutional basis of evidence. Focuses on degrees of evidence and rules governing admissibility, judicial decisions interpreting individual rights, and an analysis of case studies from arrest through final appeal.

CRJ 1025 Policing Systems
(Previously CRJ 125 Policing Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1027 Crime Scene Investigation
(Previously CRJ 127 Crime Scene Investigation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on basic procedures in crime scene management to include photography and preparing initial reports and sketches. Includes processing evidence and related criminalistic procedures. Covers interviewing suspects, witnesses, and victims to include the recording of identifications and descriptions. Incorporates lab and lecture.

CRJ 1035 Judicial Function
(Previously CRJ 135 Judicial Function)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1045 Correctional Process
(Previously CRJ 145 Correctional Process)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the history of corrections in America from law enforcement through the administration of justice, probation, prisons, correctional institutions, and parole. This course examines the theories, rationales for punishment, and the political system in which corrections, as a component part of the criminal justice system, needs to operate. The course emphasizes legal, sociological, psychological, and other interdisciplinary approached that effect the operation of a correctional system.

CRJ 1046 Community Based Corrections
(Previously CRJ 146 Community Based Corrections)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces an analysis of community based correctional programs and procedures. Emphasizes the environment and the relationship to public safety, reintegration, and punishment.

CRJ 2005 Principles of Criminal Law
(Previously CRJ 205 Principles of Criminal Law)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2009 Criminal Investigation I
(Previously CRJ 209 Criminal Investigation I)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers the function of the preliminary investigation at a crime scene to include securing the scene, crime scene searchers, police drawings, and recognition and collection of evidence.

CRJ 2010 Constitutional Law
(Previously CRJ 210 Constitutional Law)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2011 Criminal Investigation II
(Previously CRJ 211 Criminal Investigation II)
3 Credit Hours • 45 Contact Hours (Lecture)
Builds on CRJ 2009 with focus on follow-up investigation including an examination of death in all its aspects.

CRJ 2012 Criminal Investigation III
(Previously CRJ 212 Criminal Investigation III)
2 Credit Hours • 30 Contact Hours (Lecture)
Focuses on an in-depth study of the principles of conducting a complete and systematic interview and/or interrogation. Examines the psychological dynamics of persons falsifying information. Includes confessions, undercover operations, surveillance techniques, and survival skills unique to undercover operants.

CRJ 2016 Juvenile Law & Procedures
(Previously CRJ 216 Juvenile Law & Procedures)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on an in-depth analysis of the socio-legal operation of the Juvenile Justice System emphasizing the substantive and due process rights of minors. Includes analysis of legal reasoning underlying the juvenile law as it operates at all levels of government.

CRJ 2020 Human Relations & Social Conflict
(Previously CRJ 220 Human Relations & Social Conflict)
3 Credit Hours • 45 Contact Hours (Lecture)
Highlights the environmental, organizational, and socio-psychological dimensions of social control. Includes the study of individual attitudes, beliefs, and behavior involved in role conflicts, community relations, and conflict management in the social structure.

CRJ 2025 Crisis Intervention
(Previously CRJ 225 Crisis Intervention)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides information and application of crisis theories in working with diverse populations. Examines the interventionist role.

CRJ 2030 Criminology
(Previously CRJ 230 Criminology)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an introduction to the study of crime, understanding the causes of crime, and examines theoretical frameworks and theories to explain criminal behavior. Examination of the nature of crime, crime victimization, crime patterns, types of crime, crime statistics, and criminal behavior is also included.

CRJ 2031 Introduction to Forensic Science & Criminalistics
(Previously CRJ 231 Introduction to Forensic Science & Criminalistics)
3 Credit Hours • 45 Contact Hours (Lecture)
Exploration of the fundamentals of forensic science that are essential for gathering evidence at the crime scene and analyzing it in the crime laboratory.

CRJ 2035 Delinquent Behavior
(Previously CRJ 235 Delinquent Behavior)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the adolescent who violates social and legal norms and the consequences for the individual and society. Emphasizes

the social and psychological factors influencing individual delinquent patterns.

CRJ 2036 Criminal Justice Research Methods
(Previously CRJ 236 Criminal Justice Research Methods)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the formulation of research questions covering crime and justice, research designs, data collection, and the interpretation and reporting of these data in criminological and justice-system settings. Course content also includes experimental and non-experimental research designs, probability and non-probability sampling techniques, and construction of scales and indexes for research purposes.

CRJ 2045 Interview & Interrogation
(Previously CRJ 245 Interview & Interrogation)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the study of technical and legal approaches used in gathering desired information from victims, witnesses, and suspects. Examines the fundamental characteristics of questioning and the use of psychological influences.

CRJ 2057 Victimology
(Previously CRJ 257 Victimology)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the student to the role the crime victim plays in the criminal justice system. The traditional response that a crime victim receives from the system will be studied and the psychological, emotional, and financial impact these responses have on victimization will be analyzed.

CRJ 2068 Criminal Profiling
(Previously CRJ 268 Criminal Profiling)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the theories of crime causation in relationship to criminal profiling. Studies include the investigation of serial killers, their motivations, behaviors, and identification of psychological and sociological explanations related to criminal acts.

CRJ 2080 Internship
(Previously CRJ 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Provides placement in the criminal justice field to integrate theory with practice.

Culinary Arts Courses

CUA 1000 Culinary Program Fundamentals
(Previously CUA 100 Culinary Program Fundamentals)
3 Credit Hours • 45 Contact Hours (Lecture)
Trains students in the basic fundamentals of the culinary field. The course will include student overview, training in areas of Management, Culinary Arts, Baking & Pastry. Student will be trained in all areas in order to be successful in both Lecture and Lab courses. Training will include program overviews, safety & sanitation fundamentals, culinary math skills, culinary vocabulary, lab requirements, using online training methods, competitions, basic knife skills, equipment identification and proper usage, professionalism, food service history, kitchen organization, basic principles of cooking, food science, study skills, proper food storage techniques, recipes, cost management, library resources and student learning organizations, scholarships and culinary career opportunities. Students must complete this course with a grade C or higher, prior to advancing in the program.

CUA 1001 Food Safety & Sanitation
(Previously CUA 101 Food Safety & Sanitation)
2 Credit Hours • 30 Contact Hours (Lecture)
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 of from the Education Foundation.

CUA 1003 Introduction to Sanitation & Production
(Previously CUA 103 Introduction to Sanitation & Production)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Student must have completed and passed the ServSafe National Exam
This course parallels CUA 1001 and CUA 1021. 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 1005 Food Service Concepts & Management Skills
(Previously CUA 105 Food Service Concepts & Management Skills)
3 Credit Hours • 45 Contact Hours (Lecture)
Demonstrates the use of management skills training in the food service industry by use of student interaction research, and also demonstrates the various styles of menu development. Includes basic responsibility for food service personnel in all kitchen positions with emphasis on advertising vs. publicity, job analysis, description specifications, and duty list as related to recruiting and hiring process. Covers application, interview techniques, training, and hiring process. Incorporates preparation of menus for different styles of food service concept establishments.

CUA 1020 Wines & Spirits
(Previously CUA 120 Wines & Spirits)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
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 1025 Introduction to Foods
(Previously CUA 125 Introduction to Foods)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 non-alcoholic 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 1027 Soups, Sauces & Consommés
(Previously CUA 127 Soups, Sauces & Consommés)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers the preparation of the five mother sauces and small-derived sauces. Enables students to prepare stocks, consommés, emulsified sauces, clear soups, pureed soups, chowders, national and cream soups in a commercial kitchen. Introduces gravies and sauce garnishing.

CUA 1029 Center of the Plate
(Previously CUA 129 Center of the Plate)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 1036 Alcohol & Bartending Management
(Previously CUA 136 Alcohol & Bartending Management)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
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 1038 Food & Beverage Service
(Previously CUA 138 Food & Beverage Service)
2 Credit Hours • 30 Contact Hours (Lecture)
Note: Student must have completed and passed the ServSafe National Exam
Provides the practical skills and knowledge for effective management of food and beverage service in cafeterias, coffee shops, room service, banquet areas and high-check-average dining rooms. The focus is on the need of the customer.

CUA 1045 Introduction to Baking
(Previously CUA 145 Introduction to Baking)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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, 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 1050 Baking: Decorating & Presentation
(Previously CUA 150 Baking: Decorating & Presentation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Examines the preparation and production of cakes, pastries, different styles of decorating, commercial equipment, and types of products used for decoration. Covers the use of plate painting, national products, and designing show pieces.

CUA 1051 Baking: Intermediate Bread Preparation
(Previously CUA 151 Baking: Intermediate Bread Preparation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on preparation of types of bread products including French, rye, wheat, brioche, and croissants. Enables the student

to demonstrate different styles of presentation including rolling, braiding, cloverleaf, parker-house, single knot, butter-flake, comb, and wreath shape. Examines production steps, ingredients, and equipment that apply to course training.

CUA 1052 Individual Fancy Dessert Production
(Previously CUA 152 Individual Fancy Dessert Production)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on the preparation and decoration of individual dessert items. Covers the preparation of cream horns, napoleons, éclairs, cream puffs, marzipan fruits, marzipan sculptures, tarts, flambéed desserts, international desserts, pastry shells, pulled sugar, spun sugar, and individual chocolate decorations. Students research and locate dessert menus/recipes to be used in lab production.

CUA 1053 Confectionaries & Petit Fours
(Previously CUA 153 Confectionaries & Petit Fours)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the art of confections, individual chocolates and petit four cakes production and presentation. Students will learn proper candy production including high altitude preparation, use of chocolate molds, poured candies, centers, taffy, brittle, flavored chocolates, hard rock candies, and various petit fours and garnishes.

CUA 1054 Introduction to the Business of Catering
(Previously CUA 154 Introduction to the Business of Catering)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1056 Nutrition for the Hospitality Professional
(Previously CUA 156 Nutrition for the Hospitality Professional)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1057 Menu Planning
(Previously CUA 157 Menu Planning)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1061 Advanced Cake Decorating – Wedding Cakes
(Previously CUA 161 Advanced Cake Decorating – Wedding Cakes)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Demonstrates a variety of wedding cake decorating techniques. We will learn to work with gum paste, rolled fondant, royal icing. Student will complete a two-tier wedding cake.

CUA 1190 Dining Room Management
(Previously CUA 190 Dining Room Management)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 2010 Advanced Cuisine & Gardé Manger
(Previously CUA 210 Advanced Cuisine & Gardé Manger)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 2033 Advanced Line Prep & Cookery
(Previously CUA 233 Advanced Line Prep & Cookery)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 2036 Advanced Baking
(Previously CUA 236 Advanced Baking)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
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 2045 International Cuisine
(Previously CUA 245 International Cuisine)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces full meal preparation of non-traditional international cuisine. Ethnic ingredients and meals from India, Thailand, Greece, Morocco, Africa, South America, and Ecuador will be introduced.

CUA 2055 Supervision in the Hospitality Industry
(Previously CUA 255 Supervision in the Hospitality Industry)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2056 Marketing in the Hospitality Industry
(Previously CUA 256 Marketing in the Hospitality Industry)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2061 Cost Controls
(Previously CUA 261 Cost Controls)
3 Credit Hours • 45 Contact Hours (Lecture)
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 percent or higher, they will receive a national certificate for the course.

CUA 2062 Purchasing for the Hospitality Industry
(Previously CUA 262 Purchasing for the Hospitality Industry)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2063 Legal Aspects of Hospitality Management
(Previously CUA 263 Legal Aspects of Hospitality Management)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2064 Sustainable Food Service Operations
(Previously CUA 264 Sustainable Food Service Operations)
3 Credit Hours • 45 Contact Hours (Lecture)
Students will examine the issues, challenges, and opportunities in establishing a sustainable foodservice operation including economic feasibility, marketing, sourcing of products, seasonal/local menus, minimizing on-site consumption and waste of resources. Students will identify actions that will improve or diminish sustainability in a foodservice operation and how to perform cost/benefit analysis of these actions to maximize effectiveness.

CUA 2068 Vegetarian & Dietary Cuisine
(Previously CUA 268 Vegetarian & Dietary Cuisine)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the student to dietary and environmental sustainability practices to meet the future needs of the food service industry. Employment opportunities include culinary and management careers in the health care industry, institutional operations with special dietary needs, operations that serve high risk populations, and operations that utilize sustainability practices. Students will learn skills and understanding in human nutrition, menu development, cultural cuisines, sustainability practices, dietary cuisine, environmental impacts and concerns, and using the farm to fork concept within the industry. Examinations will be given throughout the program.

CUA 2069 Dietary Baking
(Previously CUA 269 Dietary Baking)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Provide the student with the development and production of bakery products that focus on common food allergens, intolerances, and health aspects. Students will prepare a variety of gluten free bakery products that address celiac disease, and

other products that address common health related issues. There will be an emphasis in the use of product substitutions including fats, sweeteners, and dairy in baking. Students will also analyze the nutritive value of ingredient refinement.

CUA 2081 Internship
(Previously CUA 281 Internship)
4 Credit Hours • 180 Contact Hours (Internship)
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 Courses

DAN 1002 Feldenkrais Method for Performing Artists
1 Credit Hour ● 30 Contact Hours (Lab)
Explores a practice of moving more easily, skillfully, and flexibly, to enhance clarity and self-expression for performing artists. The course promotes a culture of awareness, acceptance and exploration that heightens creativity. This course will explore movement puzzles with guided awareness for improving performance capabilities and reducing injury and repetitive strain often experienced by artists.

DAN 1005 Hip Hop Dance I
(Previously DAN 105 Hip Hop Dance I)
1 Credit Hour • 30 Contact Hours (Lab)
Introduces basic concepts and skills of hip hop and how it is fused with athleticism. This course will cover the progression of the hip hop dance genre beginning with foundational hip hop vocabulary. The history and culture of this genre are examined. This is a beginning level course.

DAN 1006 Hip Hop Dance II
(Previously DAN 106 Hip Hop Dance II)
1 Credit Hour • 30 Contact Hours (Lab)
Includes a continuing study of hip-hop dance movement and cultural concepts and focuses on advancing technique work and proficiency. This course expands and deepens understanding of vocabulary, choreography, styles of the dance, history, and current trends.

DAN 1011 Modern Dance I
(Previously DAN 111 Modern Dance I)
1 Credit Hour • 30 Contact Hours (Lab)
Introduces basic concepts and skills of modern dance. Focuses on technique work to improve alignment and increase strength, flexibility, endurance, coordination, rhythm, and spatial awareness. Explores dance as a tool for communication and dance as an art form. This is a beginning level course. May be repeated for no more than three credits.

DAN 1012 Modern Dance II
(Previously DAN 112 Modern Dance II)
2 Credit Hours • 60 Contact Hours (Lab)
Includes a continuing study of modern dance movement concepts. Focuses on advancing technique work and proficiency. Expands and deepens understanding of alignment, strength, flexibility, endurance, coordination, rhythm, and spatial awareness. Improvisation may be included. This course is for students who have successfully completed Modern I or have previous dance training. This course may be repeated up to two times for credit.

DAN 1013 Modern Dance III
(Previously DAN 113 Modern Dance III)
2 Credit Hours • 60 Contact Hours (Lab)
Builds on intermediate skills with more advanced and complex modern dance movement concepts and technique. Expands and deepens understanding of alignment, strength, flexibility, endurance, coordination, rhythm, spatial awareness, dynamics, and improvisation. This course is for students who have successfully completed DAN 1012: Modern II. This course may be repeated up to two times for credit.

DAN 1014 Modern Dance IV
(Previously DAN 114 Modern Dance IV)
2 Credit Hours • 60 Contact Hours (Lab)
Builds on intermediate/advanced skills with complex technique work and experimentation and emphasis on quality of movement style. Expands and deepens understanding of alignment, strength, flexibility, endurance, coordination, rhythm, spatial awareness, dynamics, and improvisation. This course is for students who have successfully completed DAN 1013: Modern III and are at an intermediate/advanced level. This course may be repeated up to two times for credit.

DAN 1017 Salsa I
(Previously DAN 117 Salsa I)
1 Credit Hour • 30 Contact Hours (Lab)
Introduces the beginning dancer to popular Salsa steps and dance combinations. This course includes basic partnering concepts and techniques. Dancers will explore rhythm, proper body alignment, and music recognition. A partner is not required for this course.

DAN 1018 Salsa II
(Previously DAN 118 Salsa II)
1 Credit Hour ● 30 Contact Hours (Lab)
Continues Salsa I with an increased knowledge of Salsa dance. This course focuses on Salsa dancing in groups of couples with frequent partner exchanges. Dancers learn a more in-depth study of Salsa dance concepts and techniques. A partner is not required for this course.

DAN 1021 Jazz I
(Previously DAN 121 Jazz I)
1 Credit Hour • 30 Contact Hours (Lab)
Introduces the basic techniques and vocabulary of jazz dance and the basic elements of dance. Focuses on movement-oriented dance, comprised of warm-up exercises, center combinations, traveling combinations, and cool down.

DAN 1022 Jazz II
(Previously DAN 122 Jazz II)
2 Credit Hours • 60 Contact Hours (Lab)
Continues Jazz I with an increased knowledge of jazz dance. Enables the student to work at an intermediate level with a basic understanding of body alignment, balance, and musicality.

DAN 1023 Jazz III
(Previously DAN 123 Jazz III)
2 Credit Hours • 60 Contact Hours (Lab)
Builds on skills learned in DAN 1022 and incorporates work at an intermediate/advanced level. Expands on jazz dance technique through more challenging movement combinations. Requires knowledge of the learned basics in dance.

DAN 1024 Jazz IV
(Previously DAN 124 Jazz IV)
2 Credit Hours • 60 Contact Hours (Lab)
Builds on skills learned in DAN 1023 and incorporates work at a more advanced level. Emphasizes more challenging movement combinations and performance techniques.

DAN 1025 Dance Appreciation: AH1
(Previously DAN 150 Dance Appreciation: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces and allows discovery, experience, analyzation, and evaluation of different genres of dance, including but not limited to, music, choreography, costuming, history, and culture.

DAN 1029 Introduction to Dance
(Previously DAN 129 Introduction to Dance)
1 Credit Hour • 30 Contact Hours (Lab)
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 1030 Dance Sampler
(Previously DAN 130 Dance Sampler)
1 Credit Hour • 30 Contact Hours (Lab)
Introduces the beginning dancer to popular dances through a social dance sampler in Salsa, Swing, and Country Western Dance technique, footwork, body posturing, rhythms, and dance floor etiquette. Examines a variety of dances such as Salsa's Mambo, Cha-Cha, and Rumba; Swing's Lindy Hop (jitterbug); and Country Western's Two Step, Cowboy Waltz, Cotton-Eyed Joe, and various Country Western line dances.

DAN 1031 Ballet I
(Previously DAN 131 Ballet I)
1 Credit Hour • 30 Contact Hours (Lab)
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, comprised of stretching, barre warm-up exercises, simple terre-à-terre and jumping steps, and basic extended positions.

DAN 1032 Ballet II
(Previously DAN 132 Ballet II)
2 Credit Hours • 60 Contact Hours (Lab)
Continues Ballet I and emphasizes ballet terminology, fundamental exercises, and the basic elements of dance. Focuses on an intermediate level within the basic structure of the ballet class.

DAN 1033 Ballet III
(Previously DAN 133 Ballet III)
2 Credit Hours • 60 Contact Hours (Lab)
Builds on Ballet II at an intermediate/advanced level. Continues learning within the basic structure of a ballet class while increasing the level of skills through more experience with challenging movement combinations.

DAN 1034 Ballet IV
(Previously DAN 134 Ballet IV)
2 Credit Hours • 60 Contact Hours (Lab)
Consists of traditional and contemporary ballet technique with focus on correct body alignment and kinesiology for an increased physical performance. This is not a pointe class.

DAN 1041 Ballroom Dance
(Previously DAN 141 Ballroom Dance)
1 Credit Hour • 30 Contact Hours (Lab)
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 of study. Partners are not required.

DAN 1042 Ballroom Dance II
(Previously DAN 142 Ballroom Dance II)
1 Credit Hour • 30 Contact Hours (Lab)
Continues DAN 1041 with focus on regional dances, customs, and rhythms. Partners are not required.

DAN 1043 Tap I
(Previously DAN 143 Tap I)
1 Credit Hour • 30 Contact Hours (Lab)
Introduces basic tap dance movements and techniques. The shuffle, ball change, brush, flap heel drop, stomp, and stamp step are covered.

DAN 1044 Tap II
(Previously DAN 144 Tap II)
1 Credit Hour • 30 Contact Hours (Lab)
Continues with the concepts introduced in Tap I including more advanced versions of time steps, drawbacks, and bomber shays. Introduces wings and syncopated pullbacks. Focuses on intricate rhythm patterns.

DAN 1050 Dance History: AH1
(Previously DAN 125 History of Dance I: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

DAN 1051 Belly Dance I
(Previously DAN 151 Belly Dance I)
1 Credit Hour • 30 Contact Hours (Lab)
Presents belly dance - the oldest dance form known to humankind and a celebration of life! Emphasizes developing balance and enables the student to perform a belly dance and learn the history of belly dance and costuming techniques.

DAN 1052 Belly Dance II
(Previously DAN 152 Belly Dance II)
1 Credit Hour • 30 Contact Hours (Lab)
Continues Belly Dance I (DAN 1051) with emphasis on coordination and balance and additional techniques. Includes costume design.

DAN 1061 African Dance I
(Previously DAN 161 African Dance I)
1 Credit Hour • 30 Contact Hours (Lab)
Learning traditional dances, rhythms ad songs from Guinea West African and surrounding areas should be expected. Students will explore the functions of these dances in relation to contemporary culture. Class warm-up includes working on core strength, flexibility, stamina, and rhythmic sensibility. Clothing for the class should be loose. Students may wear a lappa (cloth wrapped around the waist). All dancing is performed barefoot.

DAN 2011 Dance Composition & Improvisation I
(Previously DAN 211 Dance Composition & Improvisation I)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Includes creative problem-solving and choreographic exercises to explore the basic elements of dance. The course introduces improvisation and focuses on developing skills in inventing and structuring movement to create original works of choreography.

DAN 2012 Dance Composition & Improvisation II
(Previously DAN 212 Dance Composition & Improvisation II)
2 Credit Hours • 60 Contact Hours (Lab)
Furthers the study of choreographic methods including group work and developing ideas in creating site specific pieces, while continuing to cultivate individual movement style and invention.

DAN 2021 Dance Performance I
(Previously DAN 221 Dance Performance I)
2 Credit Hours • 60 Contact Hours (Lab)
Note: Must have faculty consent through audition
Includes the ability to rehearse and perform original choreography for performance after selection through audition. Expands and deepens understanding of a professional company atmosphere while focusing on technique. Improvisation may be included. This course may be repeated up to two times for credit.

DAN 2022 Dance Performance II
(Previously DAN 222 Dance Performance II)
2 Credit Hours • 60 Contact Hours (Lab)
Includes the ability to rehearse and perform original choreography at an advanced level for performance after selection through audition. Expands and deepens understanding of a professional company atmosphere while focusing on advancing technique and utilizing improvisation in performance. This course may be repeated up to two times for credit.

DAN 2024 Dance for Musical Theatre I
(Previously DAN 224 Dance for Musical Theatre I)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Introduces students to dance within the context of musical theatre. Enables the student to practice non-verbal communication and expressive movement techniques.

DAN 2025 Dance for Musical Theatre II
(Previously DAN 225 Dance for Musical Theatre II)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Continues DAN 2024 with more emphasis on performance.

DAN 2026 Pointe
(Previously DAN 226 Pointe)
1 Credit Hour • 30 Contact Hours (Lab)
Note: Must have faculty consent to enroll
Emphasizes elementary pointe technique. Most work will be done at the barre stressing the muscular development of the foot, which is necessary before more advanced work can be undertaken.

DAN 2027 Pointe II
(Previously DAN 227 Pointe II)
1 Credit Hour • 30 Contact Hours (Lab)
Note: Must have faculty consent to enroll
Offers a continuation of DAN 2026 Pointe I, with emphasis on barre work to strengthen the foot and ankle. Students will gain knowledge and skill leading to the intermediate level.

DAN 2051 Belly Dance III
(Previously DAN 251 Belly Dance III)
1 Credit Hour • 30 Contact Hours (Lab)
Continues Belly Dance II (DAN 1052) with emphasis on coordination and balance and additional techniques. Includes costume design, fitness, and the emphasis of learning advanced dance techniques to perform professionally.

DAN 2053 Belly Dance Performance I
(Previously DAN 253 Belly Dance Performance I)
1 Credit Hour • 30 Contact Hours (Lab)
Enables students to participate through rehearsal and performance in a pre-professional Belly Dance performance ensemble. The course will cover the cultural component of belly dance, the business of being a professional belly dance performer in addition to learning various styles of belly dance. Students will perform in various venues including a formal concert setting.

DAN 2054 Methods of Teaching Dance
(Previously DAN 254 Methods of Teaching Dance)
2 Credit Hours • 60 Contact Hours (Lab)
Introduces and develops the skills necessary for learning how to teach dance to children through adults. Fundamental movement principles and the goals/values of dance in education will be examined. Lectures, readings, and laboratory teaching experiences will be followed by observation and feedback sessions on practical teaching and lesson planning.

DAN 2055 Dance for Camera
(Previously DAN 255 Dance for Camera)
2 Credit Hours • 60 Contact Hours (Lab)
Analyzes, discusses, and traces the history of Dance for Camera/Screendance including musicals, art-films, and commercial media. Students will get hands-on-training in using the video camera as a two-dimensional stage, progressing to creating their own Dances for Camera. This class will require students to watch and analyze dance media, read and apply historical information discussed in creating their own screen dances, and be actively engaged in class discussions and feedback sessions.

Data Science Courses

DAT 1001 Introduction to Data Science
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a foundational overview of data science and develops the knowledge required to make data-driven decisions to address regarding real-world problems. The course introduces the how to collecting data from different sources, use of statistics to draw conclusions about a given data set, use of technology to visualize data and some of the challenges associated with storing, manipulating, analyzing and securing data. Computational tools are used as a component of the course.

Dental Assisting Courses

DEA 1011 Introduction to Dental Practices
(Previously DEA 120 Introduction to Dental Practices)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Note: May be taken concurrently with DEA 1012
Includes roles and responsibilities of the dental health team; educational background for the various specialties including general practitioner, hygienist, dental assistant; history, legal implications, ethical responsibilities, and the role of professional organizations.

DEA 1012 Dental Science I
(Previously DEA 121 Dental Science I)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Note: May be taken concurrently with DEA 1011
Includes fundamentals of the oral structures as they apply to oral histology, embryology, morphology, pathology, dental anatomy, and dental charting.

DEA 1013 Dental Science II
(Previously DEA 122 Dental Science II)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: DEA 1011, DEA 1012, or permission of instructor
Includes survey of human anatomy and physiology, the structure of the head and neck as applied to dental assisting, the function of the maxilla and mandible, processes, foramen, sutures, and major nerve and blood supply.

DEA 1015 Infection Control
(Previously DEA 126 Infection Control)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
Prerequisite: DEA 1011, DEA 1012, or permission of instructor
Includes basic information concerning infection and disease transmission in the dental office. Emphasizes knowledge of microorganisms, with an emphasis on aseptic techniques, sterilization, and hazardous communication management.

DEA 1016 Medical Emergencies in the Dental Office
(Previously DEA 132 Medical Emergencies in the Dental Office)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: DEA 1011, DEA 1012, or permission of instructor
Includes techniques for taking and reading vital signs. Emphasizes recognition, prevention, and management of medical emergency situations in the dental office. Covers completing and updating patient health history. Addresses pharmacology.

DEA 1021 Principles of Clinical Practice
(Previously DEA 102 Principles of Clinical Practice)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
Prerequisite: DEA 1011, DEA 1012, or permission of instructor
Note: Must be taken concurrently with DEA 1023; may be taken concurrently with DEA 1015
Includes techniques used in four handed dentistry, instrument identification, and armamentarium for tray set-ups. Covers sterilization and aseptic procedures.

DEA 1022 Specialties in Dentistry
(Previously DEA 104 Specialties in Dentistry)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: DEA 1011, DEA 1012, or permission of instructor
Focuses on armamentarium of specific tray set-ups for periodontics, endodontics, and fixed and removable prosthodontics. Examines pediatric dentistry, oral surgery, and implants. Includes diagnosis, treatment, and the dental assistant's role in each specialty.

DEA 1023 Dental Materials I
(Previously DEA 123 Dental Materials I)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
Prerequisite: DEA 1011, DEA 1012, or permission of instructor
Note: Must be taken concurrently with DEA 1021. May be taken concurrently with DEA 1015.
Includes fundamentals of dental materials as they apply to clinical and laboratory applications of cements, bases, liners, dental metals, resins, glass ionomers, ceramics, and dental abrasives.

DEA 1024 Dental Radiography
(Previously DEA 125 Dental Radiography)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
Prerequisite: DEA 1011, DEA 1012, or permission of instructor
Note: May be taken concurrently with DEA 1015
Focuses on the science of radiography, the application of radiographic techniques, and aseptic techniques.

DEA 1031 Prevention & Nutrition in Dentistry
(Previously DEA 134 Prevention & Nutrition in Dentistry)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
Prerequisite: DEA 1015, DEA 1016, DEA 1021, DEA 1023
Note: May be taken concurrently with DEA 1013
Emphasizes techniques in preventive dentistry to include application of fluoride, pit and fissure sealants, oral home care instruction, diet counseling and nutrition as it applies to dental health. Covers techniques for coronal polishing, extra-oral and intra-oral examination, and dental charting.

DEA 1033 Dental Materials II
(Previously DEA 124 Dental Materials II)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
Includes fundamentals of dental materials as they apply to clinical and laboratory applications of hydrocolloid and elastomeric impressions materials, gypsum products, dental waxes, study and final working models, and fabrication of provisional crowns, custom impression trays and bleaching trays.

DEA 1034 Advanced Dental Radiography
(Previously DEA 131 Advanced Dental Radiography)
3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lab)
Prerequisite: DEA 1015, DEA 1016, DEA 1021, DEA 1023, DEA 1024
Note: May be taken concurrently with DEA 1013
Includes theory and techniques of exposing intra-oral and extra-oral radiographs on adults, children, edentulous, and special needs patients. Covers dental anatomy radiographic interpretation and aseptic techniques. Enables the student to expose radiographs on the x-ray mannequin and patients. Students must be a minimum of eighteen years of age.

DEA 1035 Dental Office Management
(Previously DEA 111 Dental Office Management)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: DEA 1015, DEA 1016, DEA 1021, DEA 1023, DEA 1024
Note: May be taken concurrently with DEA 1013, DEA 1022, DEA 1031, DEA 1033, DEA 1034
Includes office management and clerical practices, scheduling appointments, completing daily records, insurance and tax forms, bookkeeping and recall systems, and ordering supplies.

DEA 1040 Dental Assisting National Board Review (Elective)
(Previously DEA 140 Dental Assisting National Board Review (Elective))
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: DEA 1011, DEA 1012, DEA 1013, DEA 1015, DEA 1016, DEA 1021, DEA 1022, DEA 1023, DEA 1024, DEA 1031, DEA 1033, DEA 1034, DEA 1035, DEA 1081, DEA 1082
Note: May be taken concurrently with DEA 1082
Focuses on a review for the Dental Assisting National Board (DANB) Examination.

DEA 1081 Clinical Internship I
(Previously DEA 181 Clinical Internship I)
1 Credit Hour • 45 Contact Hours (Internship)
Prerequisite: DEA 1011, DEA 1012, DEA 1015, DEA 1016, DEA 1021, DEA 1023, DEA 1024
Note: Must have Program Coordinator's approval to enroll
Provides an opportunity to perform clinical dental assisting skills in a dental office or clinical setting and work toward completing clinical hours required by the Commission on Dental Accreditation (CODA).

DEA 1082 Clinical Internship II
(Previously DEA 182 Clinical Internship II & Seminar)
6 Credit Hours • 270 Contact Hours (Internship)
Prerequisite: DEA 1081
Provides an opportunity to perform and advance clinical dental assisting skills in a general dental office, specialty office or clinical setting and work toward completing clinical hours required by the Commission on Dental Accreditation (CODA).

DEA 2011 Introduction to Expanded Functions
(Previously DEA 200 Introduction to Expanded Functions)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: DEA 1011, DEA 1012, DEA 1013, DEA 1015, DEA 1016, DEA 1021, DEA 1022, DEA 1023, DEA 1024, DEA 1031, DEA 1033, DEA 1034, DEA 1035, DEA 1040, DEA 1081, DEA 1082
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 2021 Expanded Functions for the Dental Auxiliary
(Previously DEA 205 Expanded Functions for the Dental Auxiliary)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: DEA 2011
Focuses on clinical application of expanded functions in dental assisting.

Diesel Power Mechanics Courses

DPM 1000 Introduction to Diesel Mechanics
(Previously DPM 100 Introduction to Diesel Mechanics)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Focuses on the student identifying and describing the many different types of diesel-powered vehicles. Emphasis is placed on being able to research information in maintenance manuals and parts manuals along with demonstration of their abilities in properly identifying and select mechanical fasteners for a particular application. Specific coverage of precision fasteners, fuels, fluids as they relate to the diesel industry.

DPM 1001 Diesel Shop Orientation
(Previously DPM 101 Diesel Shop Orientation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Focuses on maintaining a safe and clean working heavy duty diesel shop. Emphasis is placed on the proper use and care for hand, electric, air and hydraulic tools safely. Covers how to clean equipment properly, to handle and dispose of hazardous materials correctly, and to apply mandated regulations. Emphasis is also placed on proper lifting equipment.

DPM 1003 Diesel Engines I
(Previously DPM 103 Diesel Engines I)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers the theory and operation of diesel engines with emphasis on cylinder heads, valve trains 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 1005 Heavy Duty Powertrains I
(Previously DPM 105 Heavy Duty Powertrains I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1006 Diesel Fuel Systems
(Previously DPM 106 Diesel Fuel Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: DPM 1006 must be taken concurrently with DPM 2010
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 1007 Fundamentals of Four-Wheel & Front-Wheel Drive
(Previously DPM 107 Fundamentals of Four-Wheel & Front-Wheel Drive)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Focuses on the operation and repair of four-wheel drive and front wheel drive systems.

DPM 1011 Cab & Electrical PMI
(Previously DPM 111 Cab & Electrical PMI)
1.5 Credit Hours • 33.75 Contact Hours (Lecture/Lab Combination)
Note: DPM 1011 must be taken concurrently with DPM 1012
Enables the student to perform preventive maintenance on heavy equipment and truck cab and electrical systems, and complete appropriate maintenance records. Addresses the process of diagnostics and troubleshooting. Focuses on the importance of preventive maintenance.

DPM 1012 Engine Systems PMI
(Previously DPM 112 Engine Systems PMI)
1.5 Credit Hours • 33.75 Contact Hours (Lecture/Lab Combination)
Note: DPM 1012 must be taken concurrently with DPM 1011
Enables the student to perform preventive maintenance on heavy equipment and truck diesel engine systems, and complete appropriate maintenance records. Addresses the process of diagnostics and troubleshooting. Focuses on the importance of preventive maintenance.

DPM 1020 Basic Heavy Duty Electricity
(Previously DPM 120 Basic Heavy Duty Electricity)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers basic electrical theory, circuit designs, and wiring methods, multimeter usage, and wiring diagrams including the demonstration of test procedures on electrical circuits. This course meets the Inspection, Maintenance & Minor Repair; Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (IMMR/TST/MTST) program accreditation standards.

DPM 1021 Hydraulic Systems I
(Previously DPM 121 Hydraulic Systems I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Offers instruction on the basic fundamentals of hydraulics and their applications. Diagnosis, service, and testing along with safety are stressed within this course.

DPM 1022 Hydraulic Systems II
(Previously DPM 122 Hydraulic Systems II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1023 Cummins B Series
(Previously DPM 123 Cummins B Series)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the history, developments, theory, operation, and service procedures of a Cummins B Series diesel engines.

DPM 1024 Powerstroke Engines
(Previously DPM 124 Powerstroke Engines)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the history, development, theory, operation, and service procedures of Powerstroke Diesel Engines used in Ford Trucks.

DPM 1025 Duramax Engines
(Previously DPM 125 Duramax Engines)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the history, development, theory, operation, and service procedures for Duramax Diesel Engines used in General Motors Trucks.

DPM 1026 Heavy Duty Starting & Charging
(Previously DPM 126 Heavy Duty Starting & Charging)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers the operation, testing, maintenance, repair, and servicing of heavy-duty vehicle battery, starting, and charging systems including voltage drop testing, and load testing. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 1040 Heavy Duty Steering & Suspension I
(Previously DPM 140 Heavy Duty Steering & Suspension I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 2003 Diesel Engines II
(Previously DPM 203 Diesel Engines II)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 2005 Heavy Duty Powertrains II
(Previously DPM 205 Heavy Duty Powertrains II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers clutch and transmission problems. The course focuses on clutch and transmission operation, testing removal, rebuilding, inspection, and repairing, and replacement. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 2006 Heavy Duty Brakes I
(Previously DPM 206 Heavy Duty Brakes I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 2007 Heavy Duty Brakes II
(Previously DPM 207 Heavy Duty Brakes II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 2008 H/D Automatic Trans Diagnosis
(Previously DPM 208 H/D Automatic Trans Diagnosis)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Provides laboratory hands on experiences in the diagnosis of electrically controlled heavy duty transmissions.

DPM 2010 Diesel Air Induction & Exhaust
(Previously DPM 210 Diesel Air Induction & Exhaust)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: DPM 2010 must be taken concurrently with DPM 1006
Covers the theory of operation and repair of turbochargers, superchargers, intercoolers, various induction, and exhaust systems. This course examines factors regulating engine performance failure, and procedures for reclaiming engine performance.

DPM 2011 Drivetrain, Steering & Suspension Preventive Maintenance
(Previously DPM 211 Drivetrain, Steering & Suspension Preventive Maintenance)
1.5 Credit Hours • 33.75 Contact Hours (Lecture/Lab Combination)
Focuses on preventive maintenance of heavy-duty truck & equipment drivetrains and steering systems including recording of critical information for the customer. Enables students to grasp the importance of preventive maintenance while gaining an understanding of component operation.

DPM 2012 Brake Systems PMI
(Previously DPM 212 Brake Systems PMI)
1.5 Credit Hours • 33.75 Contact Hours (Lecture/Lab Combination)
Focuses on preventive maintenance of heavy-duty truck & equipment hydraulic and pneumatic brake systems, including recording of critical information for the customer. Enables students to grasp the importance of preventive maintenance while gaining an understanding of component operation.

DPM 2022 Heavy Duty Lighting & Instrumentation
(Previously DPM 222 Heavy Duty Lighting & Instrumentation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 2023 Heavy Duty Body Electrical Systems
(Previously DPM 223 Heavy Duty Body Electrical Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides a comprehensive study of the theory, operation, diagnosis, and repair of the heavy-duty vehicle body and safety electrical systems and accessories.

DPM 2040 Heavy Duty Steering & Suspension II
(Previously DPM 240 Heavy Duty Steering & Suspension II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 2064 Heavy Duty Heating & Ventilation
(Previously DPM 264 Heavy Duty Heating & Ventilation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Covers the diagnosis, service, and repair of heavy-duty equipment heating and ventilation systems. This course meets the Inspection, Maintenance & Minor Repair; Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (IMMR/TST/MTST) program accreditation standards.

DPM 2065 Heavy Duty Air Conditioning Systems Service
(Previously DPM 265 Heavy Duty Air Conditioning Systems Service)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers the diagnosis, service and repair of heavy-duty vehicle air conditioning systems and their components. This course meets the Medium/Heavy Truck Service Technology/Medium/Heavy Truck Master Service Technology (TST/MTST) program accreditation standards.

DPM 2080 Internship
(Previously DPM 280 Internship)
0-12 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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.

Dietetic Technology Courses

DIT 1021 Nutrition for Dietary Managers
(Previously DIT 121 Nutrition for Dietary Managers)
4 Credit Hours • 60 Contact Hours (Lecture)
Focuses on the study of normal nutrition in the individual, nutrition education, nutritional assessment, care plans, principles of therapeutic nutrition, diet modification, and quality assurance for clinical nutrition services. This course is part of the Association of Nutrition and Foodservice Professionals accredited training program for the Certified Dietary Manager, Certified Food Protection Professional (CDM, CFPP).

DIT 1023 Management for Dietary Managers
(Previously DIT 123 Management for Dietary Managers)
4 Credit Hours • 60 Contact Hours (Lecture)
Focuses on the study of foodservice, sanitation and safety, personnel and communications, and business operations required to manage a foodservice department located in continuous care retirement communities, long-term care facilities, hospitals, schools, and correctional institutions. This course is part of the Association of Nutrition and Foodservice Professionals accredited training program for the Certified Dietary Manager, Certified Food Protection Professional (CDM, CFPP).

DIT 1080 Field Experience: Nutrition
(Previously DIT 180 Field Experience: Nutrition)
1 Credit Hour • 45 Contact Hours (Internship)
Offers field experience in the study and application of nutrition therapy through modified diets, nutrition screening and nutrition assessments. This course is part of the Association of Nutrition and Foodservice Professionals accredited training program for the Certified Dietary Manager, Certified Food Protection Professional (CDM, CFPP).

DIT 1081 Field Experience: Human Resources Management
(Previously DIT 181 Field Experience: Human Resources Management)
2 Credit Hours • 90 Contact Hours (Internship)
Offers field experience in the study and application of personnel management, policies, and evaluation and communication within a foodservice department. This course is part of the Association of Nutrition and Foodservice Professionals accredited training program for the Certified Dietary Manager, Certified Food Protection Professional CDM, CFPP).

DIT 1082 Field Experience: Sanitation and Management of Food Systems
(Previously DIT 182 Field Experience: Sanitation and Management of Food Systems)
2 Credit Hours • 90 Contact Hours (Internship)
Offers field experience in the study and application of sanitation principles, food protection, Hazard Analysis and Critical Control Point (HACCP) guidelines, and safety inspections of food preparation equipment and use by employees to meet regulatory guidelines in a foodservice department. This course is part of the Association of Nutrition and Foodservice Professionals accredited training program for the Certified Dietary Manager, Certified Food Protection Professional CDM, CFPP).

DIT 2070 Clinical Experience: Community
(Previously DIT 270 Clinical Experience: Community)
2-4 Credit Hours • Per Credit Hour, 30 Contact Hours (Clinical)
Gives first-hand experience with community nutrition and the changing health care delivery systems. It provides an overview of the agencies and programs involved in community nutrition. It also addresses the significant nutrition problems facing society. The student will have an in-depth experience in one community nutrition agency. The course carries 2-4 semester credits. Students are expected to meet weekly in a seminar class in addition to their on-site work. Students receiving 4 hours credit will work 165 hours at the specified sites plus the 15 hours of seminar. Students receiving 2 hours credit will work 75 hours at their specified site plus the 15 hours of seminar. This course is part of the American Dietetic Association accredited program for the Dietetic Technician. The clinical coordinator and student work out a mutually agreeable schedule to accomplish the required hours.

DIT 2071 Clinical Experience: Hospital
(Previously DIT 271 Clinical Experience: Hospital)
6 Credit Hours • 180 Contact Hours (Clinical)
Incorporates first-hand experience with health care clients in a hospital setting. Emphasizes therapeutic dietetics and the application of nutritional care to clinical cases. Provides experience in hospital policy and procedures, nutrition education in a hospital and hospital food service management. Enables the student to have the opportunity to chart and follow an individual patient in a case study. The course carries 2-4 credits. Students are expected to meet weekly in a seminar class in addition to their on-site work. Students receiving 4 hours credit will work 165 hours at the specified sites plus 15 hours of seminar. Students receiving 2 hours credit will work 75 hours at their specified site plus 15 hours of seminar. This course is part of the American Dietetic Association accredited program for the Dietetic Technician. The clinical coordinator and student work out a mutually agreeable schedule to accomplish the required hours.

DIT 2072 Clinical Experience: Nursing Homes
(Previously DIT 272 Clinical Experience: Nursing Homes)
4 Credit Hours • 120 Contact Hours (Clinical)
Incorporates first-hand experience with health care clients in retirement/nursing home centers. Emphasizes the administrative side of dietetics with experiences in menu planning, food preparation, purchasing, personnel management, financial control, sanitation, and safety. Includes experiences in patient care, education, and charting. The course carries 2-4 credits. Students are expected to meet weekly in seminar class in addition to their on-site work. Students receiving 4 hours credit will work 165 hours at the specified sites plus a 15-hour seminar. Students receiving 2 hours credit will work 75 hours at their specified site plus 15-hour seminar. This course is part of the American Dietetic Association accredited program for the Dietetic Technician. The

site coordinator and student work out a mutually agreeable schedule to accomplish the required hours.

Driving Courses

DRV 1000 Driver's Education
(Previously DRV 100 Driver's Education)
2.5 Credit Hours • 56.25 Contact Hours (Lecture/Lab Combination)
Consists of 30 hours of classroom instruction and one to six hours of actual driving. Covers defensive driving techniques, drugs and alcohol, consequences of breaking traffic laws, insurance, how to buy a new and used car, proper driving techniques, what to do at the scene of an accident, what to do if your car breaks down, how to maintain your car and prepare for winter driving and seat belt safety. Enables the student to develop skills in defensive driving, three-point turns, parallel parking, right and left turns, right of way, winter driving, highway driving, changing lanes safely, learning to pass other vehicles correctly and rural driving techniques.

DRV 1030 Preparing for CDL
(Previously DRV 130 Preparing for CDL)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
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 1032 Trucks & Trailering
(Previously DRV 132 Trucks & Trailering)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Students must be enrolled in at least one DPM class
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 1034 Trucking Laws & Regulations
(Previously DRV 134 Trucking Laws & Regulations)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 1036 Vehicle Inspection & Maintenance
(Previously DRV 136 Vehicle Inspection & Maintenance)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Students must be enrolled in at least one DPM class
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 1038 Driver Training
(Previously DRV 138 Driver Training)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
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.

Early Childhood Education Courses

ECE 1011 Introduction to Early Childhood Education
(Previously ECE 101 Introduction to Early Childhood Education)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1031 Guidance Strategies for Young Children
(Previously ECE 103 Guidance Strategies for Young Children)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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 1045 Introduction to Early Childhood Techniques
(Previously ECE 102 Introduction to Early Childhood Techniques)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Practicum)
Prerequisite: ECE 1011 or concurrent enrollment, ECE 1031 or concurrent enrollment
Focuses on a classroom seminar and placement in a childcare setting. The supervised placement provides the student with the opportunity to observe children, to practice appropriate interactions, and to develop effective guidance and management techniques. Addresses ages birth through age 8.

ECE 1111 Infant & Toddler Theory & Practice
(Previously ECE 111 Infant & Toddler Theory & Practice)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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 issues.

ECE 1125 Introduction to Infant/Toddler Lab Techniques
(Previously ECE 112 Introduction to Infant/Toddler Lab Techniques)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Practicum)
Prerequisite: ECE 1011 or concurrent enrollment, ECE 1111 or concurrent enrollment
Includes a classroom seminar and placement in an infant and/or toddler setting. The supervised placement provides the student with the opportunity to observe, to practice appropriate interactions, and to develop effective guidance and nurturing techniques with infants and/or toddlers. Addresses ages prenatal through age 2.

ECE 1271 Music/Movement for the Young Child
(Previously ECE 127 Music/Movement for the Young Child)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
Focuses on the purposes of incorporating music and movement into the early childhood curriculum. Through active participation with hands-on experiences, students work with the concepts of age and developmental appropriateness when designing fun activities with both subjects.

ECE 1911 School Age Theory & Practice
(Previously ECE 191 School Age Theory & Practice)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
Emphasizes processes for planning and implementing developmentally appropriate environments, materials, and experiences in school age programs, working with children ages 6 – 12 years of age. Provides expression and problem-solving skills in school age children.

ECE 1925 School Age Lab Techniques
(Previously ECE 192 School Age Lab Techniques)
3 Credit Hours • 90 Contact Hours (Practicum)
Prerequisite: ECE 1011 or concurrent enrollment, ECE 1911 or concurrent enrollment
Incorporates lab experience in before/after school, summer camp, or elementary school programs. Focuses on planning and implementing developmentally appropriate curriculum for school age children. Includes assisting the supervising teacher in all activities.

ECE 2051 Nutrition, Health & Safety
(Previously ECE 205 Nutrition, Health & Safety)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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 2061 Observation & Assessment of Young Children's Development, Learning, & Programs
(Previously ECE 209 Observation & Assessment of Young Children's Development, Learning & Programs)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
Provides a foundational understanding of the observation and assessment of young children's development and learning environments. This course also examines the current research on the continuous practice of observing and assessing children's development and incorporates practice with a variety of assessment instruments, particularly evidence-based and authentic assessment.

ECE 2079 Seminar
(Previously ECE 279 Seminar)
1- 6 Credit Hours • Per Credit Hour, 15 Contact Hours (Seminar)
Note: Must have faculty consent to enroll
Provides students with an opportunity to examine aspects of early childhood education in detail.

ECE 2089 Capstone: Early Childhood Education
(Previously ECE 289 Capstone: Early Childhood Education)
5 Credit Hours • 150 Contact Hours (Practicum)
Prerequisite: ECE 1011 or concurrent enrollment
Note: Must have faculty consent to enroll
Incorporates a demonstrated culmination of learning within a given program of study.

ECE 2101 Working with Families & Communities
(Previously ECE 256 Working with Families & Communities)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
Examines professional attitudes related to working with diverse families and how unconscious bias may affect family-professional partnerships in early care and education settings. This course covers theoretical perspectives of families and communities, communication strategies, and an exploration of activities and resources to support family engagement in their children's education. Supporting equity and inclusion of all family cultures in early care and education settings for children ages birth through eight.

ECE 2371 Theories & Techniques of Social & Emotional Growth
(Previously ECE 237 Theories & Techniques of Social & Emotional Growth)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
Note: Must have faculty consent to enroll
Incorporates student specific techniques and strategies for guiding and enhancing social and emotional growth in children 0-8 years. Introduces and compares the theories and theorists underlying quality interactions and patterns of social and emotional progression.

ECE 2381 ECE Child Growth & Development
(Previously ECE 238 ECE Child Growth & Development)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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 2401 Administration of Early Childhood Care & Education Programs
(Previously ECE 240 Administration of Early Childhood Care & Education Programs)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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 2411 Administration: Human Relations for Early Childhood Education
(Previously ECE 241 Administration: Human Relations for Early Childhood Education)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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 2601 The Exceptional Child
(Previously ECE 260 The Exceptional Child)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment, ECE 2381 or concurrent enrollment
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 2615 Exceptional Child Lab Techniques
(Previously ECE 261 Exceptional Child Lab Techniques)
3 Credit Hours • 90 Contact Hours (Practicum)
Prerequisite: ECE 1011 or concurrent enrollment
Incorporates a supervised field experience in a program serving exceptional children in an inclusive setting. The course focuses on the responsibility for planning and implementing developmentally appropriate activities, supporting classroom adaptations and accommodations, practicing appropriate interactions, and developing effective guidance and nurturing techniques.

ECE 2621 Curriculum Development: Methods & Techniques
(Previously ECE 220 Curriculum Development: Methods & Techniques)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment, ECE 2381 or concurrent enrollment
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 2631 Language & Cognition for the Young Child
(Previously ECE 225 Language & Cognition for the Young Child)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
Note: Course offered at CCCOnline only
Examines theories of cognitive and language development as a framework for conceptualizing the way children acquire thinking skills. Includes observing, planning, facilitating, creative representation, and evaluating strategies within the context of play. Focuses on language, science, math, problem solving, and logical thinking. Addresses ages birth through age 8.

ECE 2641 Creativity & the Young Child
(Previously ECE 226 Creativity & the Young Child)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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 age 8.

ECE 2661 Science/Math & the Young Child
(Previously ECE 125 Science/Math & the Young Child)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ECE 1011 or concurrent enrollment
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.

Economics Courses

ECO 1001 Economics of Social Issues: SS1
(Previously ECO 101 Economics of Social Issues: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines major contemporary socio-economic issues and policies such as drugs and crime, education, health care, poverty and inequality, and globalization. These issues will be explored using economic tools and methods.

ECO 2001 Principles of Macroeconomics: SS1
(Previously ECO 201 Principles of Macroeconomics: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the study of the national economy, emphasizing business cycles and long-run growth trends. Explores how macroeconomic performance is measured, including Gross Domestic Product and labor market indicators. Examines the saving-investment relationship and its relationship to Aggregate Supply and Aggregate Demand. Discusses money and banking, international trade, fiscal and monetary policy. Explores the macroeconomic role of the public sector.

ECO 2002 Principles of Microeconomics: SS1
(Previously ECO 202 Principles of Microeconomics: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the study of individual decision making, emphasizing households, business firms and industry analysis. Explores market models, including competition, monopoly, monopolistic competition, and oligopoly. Examines market failure and related efficiency criteria for government intervention. Explores public policy, including labor market issues, poverty, and the environment.

ECO 2045 Environmental Economics: SS1
(Previously ECO 245 Environmental Economics: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

Education Courses

EDU 1088 Practicum I
(Previously EDU 188 Practicum I)
1-6 Credit Hours • Per Credit Hour, 45 Contact Hours (Practicum)
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.

EDU 2088 Practicum II
(Previously EDU 288 Practicum II)
3 Credit Hours • 135 Contact Hours (Practicum)
Prerequisite: EDU 2211 or concurrent enrollment
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.

EDU 2089 Capstone
(Previously EDU 289 Capstone)
1 Credit Hour • 45 Contact Hours (Practicum)
Focuses on a demonstrated culmination of learning within a given program of study.

EDU 2211 Introduction to Education
(Previously EDU 221 Introduction to Education)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Note: Must have concurrent field-experience component if not embedded in the class
Focuses on the historical, social, political, philosophical, cultural, and economic forces that shape the United States public school system. This course includes current issues of education reform,

technology as it relates to education, and considerations related to becoming a teacher in the state of Colorado. The course addresses the educational theory and practices from Early Childhood Education (ECE) through secondary education.

EDU 2215 Introduction to Education Techniques
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: EDU 2211
Provides opportunities to explore teacher dispositions and skills through hands-on work experience under the immediate supervision of experienced personnel in an educational setting related to an educator program of study. Direct guidance is provided by the course instructor in educational settings from PreK – 12th grade.

EDU 2221 Effective Teaching
(Previously EDU 222 Effective Teaching)
1 Credit Hour • 15 Contact Hours (Lecture)
Focuses on strategies for becoming effective teachers in diverse education settings within Early Childhood Education (ECE), K-12, or higher education. This course includes using learning objectives for assessment, instructional design, and lesson planning to create inclusive learning environments through the implementation of research-based best practices.

EDU 2331 English Language Learners
(Previously EDU 233 English Language Learners)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on all aspects in the role of working with and teaching English Language Learners (ELL). This course introduces language acquisition, pedagogy, and culture. Additional topics include the examination of historical, legal, and political issues related to educational programs for non-and limited-English speaking students, and associated resources for teaching ELL students.

EDU 2341 Multicultural Education
(Previously EDU 234 Multicultural Education)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores racial, ethnic, cultural, and socioeconomic groups to gain an understanding of equity, diversity, and inclusion in communities and education. This course provides opportunities to contextualize multicultural perspectives in society and their impact on the education system.

EDU 2401 Teaching the Exceptional Learners
(Previously EDU 240 Teaching the Exceptional Learner)
Prerequisite: PSY 2441
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on learners with exceptionalities with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations in special education preschool to 21 (P-21). Course topics include issues related to mild disabilities, severe disabilities, emotional and behavioral disorders, intellectual disabilities, and gifted and talented.

EDU 2501 CTE in Colorado
(Previously EDU 250 CTE in Colorado)
1 Credit Hour • 15 Contact Hours (Lecture)
Explores common elements of American community college philosophy and current practices. It details the philosophy of Career and Technical Education (CTE), the federal Carl D. Perkins legislation and related guidelines for CTE, national and state regulatory agencies, the CCCS program approval process, enrollment management and advising strategies, relevant local and national issues, and quality assurance principles.

EDU 2511 Secondary CTE Capstone
(Previously EDU 251 Secondary CTE Capstone)
3 Credit Hours • 45 Contact Hours (Lecture)
This capstone course in the secondary CTE credentialing sequence offers an in-depth analysis of secondary career and technical student organizations and competitions, the Colorado Technical Act, working with exceptional students, creating and effectively deploying program advisory committees, and an overview of educational and political systems in Colorado. The final project is an analysis of the efficiency with which one's employing school district funds, operates and assesses CTE programs.

EDU 2601 Adult Learning & Teaching
(Previously EDU 260 Adult Learning & Teaching)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines effective teaching strategies, design principles, and assessment practices in higher education. This course introduces instructional theories and applications with particular emphasis on adult learners. Course topics include syllabus, assessment, and course development using theories and strategies that support equity and inclusion with emphasis on teaching to a diverse student body, effective course design, assessment, and instructional strategies.

EDU 2611 Teaching, Learning & Technology
(Previously EDU 261 Teaching, Learning & Technology)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2631 Teaching & Learning Online
(Previously EDU 263 Teaching & Learning Online)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2651 Instructional Design
(Previously EDU 265 Instructional Design)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the student to a systematic approach to Instructional Design and the design of instruction with multimedia. Incorporates learning and instructional theory into course/training design to ensure the quality of instruction. Covers the process of goal analysis and learning needs coupled with the development of a delivery system to meet those needs. Includes the development of instructional materials and activities and the evaluation of all instruction and learner activities.

EDU 2661 Advanced College Teaching Methods
(Previously EDU 266 Advanced College Teaching Methods)
1 Credit Hour • 15 Contact Hours (Lecture)
Explores current adult learning theory and relates this theory to the practice of teaching. It also covers a variety of factors that influence teaching and learning, including social and individual psychological aspects of adult learning, patterns of participation and motivation, the role of instructional technology, handling challenging classroom behaviors, and assessment and evaluation strategies. The main point raised and discussed throughout the

course is that effective teaching requires that instructors utilize a range of teaching and assessment approaches and methods in order to enhance learning.

Electricity Industrial Commercial Courses

EIC 1860 National Electrical Code I
(Previously EIC 130 National Electrical Code I)
4 Credit Hours ● 90 Contact Hours (Lecture/Lab Combination)
Focuses on the National Electrical Code and local code requirements for electrical installation. Covers chapters one through four of the National Electrical Code.

EIC 1861 National Electrical Code II
(Previously EIC 135 National Electrical Code II)
4 Credit Hours ● 90 Contact Hours (Lecture/Lab Combination)
Builds on course EIC 1860 and covers chapters five through nine of the National Electrical Code, including hazardous locations, special occupancies, conditions, and equipment.

EIC 2330 Instrument & Process Control II
(Previously EIC 230 Instrument and Process Control II)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Introduces the basic concepts, principles, equipment and components of instrumentation and control systems found in the process and energy supply industries. The fundamental process variables of pressure, temperature, level, flow, and physical properties will be presented. Control loop structure and function will be introduced. The function and operation of a proportional-integral-derivative (PID) controller will be introduced. Students will assemble and operate basic control loops in a laboratory setting.

EIC 2340 Supervisory Control & Data Acquisition
(Previously EIC 245 Supervisory Control & Data Acquisition)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Provides an in-depth overview of how remote sensing and actuation are combined with modern communication techniques to effectively monitor and control industrial processes. Supervisory Control & Data Acquisition (SCADA) refers to an industrial control system, a computer system that monitors and controls processes.

EIC 2751 Fiber Optics Certification
(Previously EIC 253 Fiber Optics Certification)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Introduces the theory of fiber optics including standards, installation, connectorization, mechanical/fusion splicing and testing through advanced procedures in troubleshooting, repair, and certification. Serves as a non-vendor dependent certification course for levels 1,2 & 3. Focuses on building real world fiber networks with extensive hands-on certification and written exams that prepare students for the versatility of actual work environments.

EIC 2757 Lan Certification/Repair/Troubleshooting
(Previously EIC 259 Lan Certification/Repair/Troubleshooting)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Explores the testing, repair, certifying and troubleshooting of LAN using network distribution simulators to diagnose twisted repairs, coax and fiber.

EIC 2770 Fundamentals of Industrial Networking
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206, ELT 1246
Covers the operation and troubleshooting of industrial networks. This course introduces intersectional skills pertaining to industrial networking including security and wireless.

EIC 2817 Electrical Estimating/Costing
(Previously EIC 217 Electrical Estimating/Costing)
4 Credit Hours ● 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Focuses on the fundamentals of electrical estimating, material takeoffs from prints, required labor hours, material loss allowances and scheduling to ensure orderly work progress.

Electronics Courses

ELT 1001 Survey of Electronics
(Previously ELT 101 Survey of Electronics)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces electronics for consumers, individuals working in related fields, and those exploring Electronics Engineering Technology as a career option. Covers fundamental concepts, circuit diagrams, construction of circuits, test instruments, basic troubleshooting, and the operation of common electronic systems and circuits.

ELT 1002 Soldering
(Previously ELT 163 Soldering)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Covers the theory and practice of high reliability hand soldering in the electronics field. Includes soldering practice with wire and terminal soldering as well as PCB soldering of through-hole and surface-mount devices.

ELT 1004 Electronic Assembly
(Previously ELT 165 Electronic Assembly)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces electronic assembly methods with an emphasis on processes, safety, component recognition, and soldering techniques for both through hole and surface mount components.

ELT 1206 Fundamentals of DC/AC
(Previously ELT 106 Fundamentals of DC/AC)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: MAT 1140 or higher
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 1207 Fundamentals of Industrial Electronics
(Previously ELT 107 Fundamentals of Industrial Electronics)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Provides a basic knowledge of generators, motors, and the solid-state devices and digital techniques used for industrial control applications.

ELT 1212 Advanced DC/AC
(Previously ELT 112 Advanced DC/AC)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Continues to build on ELT 1206 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 1234 Solid State Devices I
(Previously ELT 134 Solid State Devices I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Focuses on diode and transistor studies starting with a review of semiconductor materials. Emphasizes rectifier circuits, R-C and L-C filters, limiters and peak detectors, zener regulators, Schottky diodes, varactors/veristors, LED's bipolar transistors, transistor approximation, load-lines, biasing techniques, saturation, operating point, AC models including small-signal operation, h-parameters, and data sheet understanding and interpolation.

ELT 1235 Solid State Devices II
(Previously ELT 135 Solid State Devices II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Continues the study of transistors with an emphasis on application of modern devices to industrial circuits. Includes power amplifiers, Cascaded and Darlington configurations, field-effect devices, JFET's and MOSFET's, depletion and enhancement mode devices, biasing techniques, thyristors, SCR's, and variations of the SCR family of devices.

ELT 1236 Introduction to Transistors
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Introduces the operation and applications of bipolar transistors, JFETs and MOSFETs. Includes switching circuits, single-stage small-signal amplifiers and troubleshooting.

ELT 1237 Advanced Transistors
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Continues ELT 1236 with specifications and additional applications of bipolar transistors, JFETs and MOSFETs. Covers voltage regulation, common-collector, and power amplifiers. Includes analyses of single and cascaded amplifier stages. Emphasizes troubleshooting.

ELT 1246 Digital Devices in Computers
(Previously ELT 146 Digital Devices in Computers)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Students will learn the basic logic concepts of computer circuits. The concepts of digital circuits used in computer circuitry will be covered. This includes dates, flip-flops, counters, and encoders-decoders. Students will also learn the binary, hex and octal number systems used in computers and how to convert between these number systems and decimal numbers. Troubleshooting of digital circuits will be included.

ELT 1247 Digital Devices I
(Previously ELT 147 Digital Devices I)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Introduces the operation and application of gates, flip-flops, counters, shift registers, encoders-decoders, and LED displays. Covers binary numbers, Boolean algebra, and troubleshooting.

ELT 1248 Digital Devices II
(Previously ELT 148 Digital Devices II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Continues ELT 1247 with emphasis on the operation and application of programmable logic devices, synchronous counters, multiplexers, liquid crystal displays, ROM and RAM. Includes specifications of ICs, display multiplexing, and design and minimization of circuits. Troubleshooting is emphasized.

ELT 1250 Electromechanical Troubleshooting
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Focuses on troubleshooting electromechanical systems consisting of switches, relays, and motors. Emphasizes teamwork.

ELT 2080 Internship
(Previously ELT 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Prerequisite: Permission of Chair or 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.

ELT 2205 Electronic Troubleshooting I
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Introduces basic troubleshooting techniques and skills required to analyze, troubleshoot, and repair both analog and digital electronic devices.

ELT 2206 Electronic Troubleshooting II
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Focuses on selection, maintenance and care procedures for equipment used in troubleshooting analog equipment. Introduces basic repair procedures and quality assurance and control methods.

ELT 2215 Operational Amplifiers
(Previously ELT 215 Operational Amplifiers)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Focuses on a study of integrated operational amplifiers and their applications. Troubleshooting is emphasized.

ELT 2235 Semiconductor Manufacturing I
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Serves as the first course in a two-course capstone sequence in semiconductor processing. Covers tracing semiconductor processing from raw materials to a finished integrated circuit, and semiconductor device physics. Includes the following manufacturing processes: oxidation, mask design, photolithography, and etch.

ELT 2236 Semiconductor Manufacturing II
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Serves as the second course in a two-course capstone sequence in semiconductor processing. Covers the following manufacturing processes: doping, chemical vapor deposition, metalizing, and test/sort.

ELT 2252 Motors & Controls
(Previously ELT 252 Motors & Controls)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
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.

ELT 2266 Advanced Electronic Assembly
(Previously ELT 266 Advanced Electronic Assembly)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Focuses on the printed circuit board and how to repair, modify and rework broken or defective printed circuit boards. Includes selecting proper procedures, selecting proper tools, making repairs to Lands, replacing components, repairing defects in printed circuit boards, use of conformal coatings, proper handling of electronic components, laminate repair and heat treatment of components.

ELT 2348 Automation Control Circuits
(Previously ELT 248 Automation Control Circuits)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Introduces the fundamentals of automatic controls including process control methodologies used to regulate a system or multiple systems for the purpose of establishing and maintaining a predictable manufacturing process.

ELT 2357 Sensors & Transducers
(Previously ELT 257 Sensors & Transducers)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
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.

ELT 2358 Programmable Logic Controllers
(Previously ELT 258 Programmable Logic Controllers)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206, ELT 2252
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 2359 Advanced Programmable Logic Controllers
(Previously ELT 259 Advanced Programmable Logic Controllers)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 2358
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 2361 Microprocessors
(Previously ELT 261 Microprocessors)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1246 or ELT 1247
Focuses on basic operation and applications of microprocessors. Enables the student to write machine and assembly language programs, interface microprocessors to various devices, and troubleshoot microprocessor-based systems.

ELT 2362 Introduction to Microcontrollers
(Previously ELT 262 Introduction to Microcontrollers)
3 Credit Hours ● 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1246 or ELT 1247
Introduces the architecture, hardware, programming languages, and input/output capabilities of microcontrollers. The course develops the skills necessary to write and debug code, program the microcontroller, acquire and analyze sensor data, and use that data to control actuators.

ELT 2367 Introduction to Robotics
(Previously ELT 267 Introduction to Robotics)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Introduces basic robotics. Enables the student to program a robot in a higher-level language to perform various tasks. Covers building and interfacing of sensor circuits.

ELT 2368 Robotics Technologies
(Previously ELT 268 Robotics Technologies)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 2358
Introduces industrial robotics as well as a survey of the technologies and equipment used in manufacturing automation and process control. Includes axis configurations, work envelopes, programming, troubleshooting, and maintenance. Incorporates a survey of automation topics including history, computer and hardwired controls, sensors and transducers, motors and actuators, fluid power, etc. and provides a preview of the other ELT classes that cover those subjects.

ELT 2437 Vacuum and Power RF Systems
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Covers vacuum systems and RF (radio frequency) energy sources in the manufacture of semiconductor devices. Includes gas laws and gas properties, vacuum pumps, gauges and valves, and leak detection techniques. Addresses plasma physics, RF generators, transmission lines, RF interference, and safety.

ELT 2455 Fluid Power
(Previously ELT 255 Fluid Power)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ELT 1206
Enables the student to study, construct, test and evaluate circuit diagrams, transmission of force and energy, pumps and motors, actuators, cylinders, valves, and control devices. Incorporates the construction of hydraulic and pneumatic circuits using industrial equipment in the laboratory.

Emergency Management and Planning Courses

EMP 1001 Principles of Emergency Management
(Previously EMP 101 Principles of Emergency Management)
3 Credit Hours • 45 Contact Hours (Lecture)
Presents a broad overview of an emergency management system and the importance of an integrated approach to managing emergencies. Enables the student to formulate the elements of an integrated teamwork system and devise specific actions for improving their own contributions to local emergency management teams. Focuses on all disciplines that work together in planning for or responding to emergencies.

EMP 1005 Emergency Planning
(Previously EMP 105 Emergency Planning)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces a specialized type of community planning that identifies local government strategies, resources and responsibilities for protecting citizens from the effects of disasters and other major emergency events. Focuses on the Emergency Operations Plan (EOP) and a jurisdiction's game plan for dealing with potential catastrophes resulting from natural hazards and/or human-caused hazards. Examines EOPs in detail including their history and evolution, process, recommended content, style and format, involved stakeholders, and implementation methods. Covers the context of emergency planning as it relates to long-range community planning. Addresses methods for conducting a comprehensive community hazard analysis and highlights lessons learned in recovering from a disaster.

EMP 1006 Exercise Design Evaluation
(Previously EMP 106 Exercise Design Evaluation)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides knowledge and the development of skills that enable the student to train a staff and to conduct an exercise that tests a community's plan and its operational response capability. Enables the student to manage exercise evaluation activities before, during, and after an emergency management exercise.

EMP 1007 Emergency Operations Center & Communications
(Previously EMP 107 Emergency Operations Center & Communications)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides the knowledge and skills to manage and operate an EOC during crisis situations. Covers aspects of properly locating and designing an EOC, how to staff, train and brief EOC personnel, and how to operate an EOC during various situations. Focuses on various aspects of information gathering and dissemination including best practices for use of computers in an EOC environment, promoting enhanced planning and better control information flow to safely and effectively make strategic response decisions.

EMP 2040 Leadership & Influence
(Previously EMP 240 Leadership & Influence)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores the dynamics of managing major emergency incidents, focusing on the National Incident Command System. Covers major incidents where large life, property, or economic losses are possible. Includes organization and staffing, incident and event planning/staffing, organizing a response to an incident, and incident resource management. Actual incidents are discussed and analyzed. Focuses on the experience of others in handling major emergencies and the preplanning of emergencies.

Emergency Medical Services Courses

EMS 1015 Emergency Medical Responder
(Previously EMS 115 Emergency Medical Responder)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1021 EMT Fundamentals
(Previously EMS 121 EMT Fundamentals)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: EMS 1021, EMS 1022, EMS 1023, EMS 1024, and EMS 1070 must be taken concurrently
Introduces the Emergency Medical Technician (EMT) student to pre-hospital 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 1022 EMT Medical Emergencies
(Previously EMS 122 EMT Medical Emergencies)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 1021 or concurrent enrollment
Note: EMS 1021, EMS 1022, EMS 1023, EMS 1024, and EMS 1070 must be taken concurrently
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 1023 EMT Trauma Emergencies
(Previously EMS 123 EMT Trauma Emergencies)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 1021 or concurrent enrollment
Note: EMS 1021, EMS 1022, EMS 1023, EMS 1024, and EMS 1070 must be taken concurrently
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 1024 EMT Special Considerations
(Previously EMS 124 EMT Special Considerations)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 1021 or concurrent enrollment
Note: EMS 1021, EMS 1022, EMS 1023, EMS 1024, and EMS 1070 must be taken concurrently
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 1026 EMT Basic Refresher
(Previously EMS 126 EMT Basic Refresher)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
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 1062 Wilderness EMS- Upgrade
(Previously EMS 162 Wilderness EMS- Upgrade)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: EMT certification required
Provides an enhanced understanding of assessment and treatment skills in a remote challenging environment to currently certified EMS professionals of all levels. This course is designed to align with a variety of Wilderness EMS upgrade programs that

focus on wilderness concepts and skills. Students will receive Certification of Completion upon successful completion.

EMS 1070 EMT Clinical
(Previously EMS 170 EMT Clinical)
1 Credit Hour • 30 Contact Hours (Clinical)
Prerequisite: EMS 1021 or concurrent enrollment
Note: Student must hold a current CPR card at the American Heart Association Healthcare Provider or American Red Cross Professional Rescuer level prior to starting clinical rotations midway through the semester. Students can obtain this card by completing HPR 1011 at PPSC or by taking the course in the community.
Grading: P/F only
Provides the EMT student with the clinical experience required for initial certification and some renewal processes.

EMS 1071 Advanced Emergency Medical Technician Clinical Internship
(Previously EMS 171 Advanced Emergency Medical Technician Clinical Internship)
2 Credit Hours ● 90 Contact Hours (Clinical)
Prerequisite: EMS 1125 or concurrent enrollment
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 1081 EMT Internship I
(Previously EMS 181 EMT Internship)
1.5 Credit Hours • 67.5 Contact Hours (Internship)
Note: Colorado EMT Certification required
Provides the learner with the opportunity to apply clinical concepts, strategies, and skills in a supervised field internship setting as a pre-hospital healthcare provider. Under the supervision of a preceptor, participants will be expected to manage all aspects of an emergency call from the time of dispatch to patient transfer. This will include radio, verbal and written communications, legal and ethical issues, response activities, scene assessment and management, patient interaction, assessment, and treatment, patient disposition, and preparation for the next call. The course allows the learner to gain knowledge, skills, and experience that may be required for employment, or required as a prerequisite for further Emergency Medical Services (EMS) education. The knowledge base for this course is based on current pre-hospital healthcare provider certification, and knowledge and skills acquired from EMS classes the participant has completed or is currently enrolled in.

EMS 1125 Advanced Emergency Medical Technician Fundamentals
(Previously EMS 131 Advanced Emergency Medical Technician Fundamentals)
2 Credit Hours ● 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: ENG 1021
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 1127 Advanced Emergency Medical Technician Special Considerations
(Previously EMS 127 Advanced Emergency Medical Technician Special Considerations)
2 Credit Hours ● 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 1125 or concurrent enrollment
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 1129 Emergency Medical Technician Pharmacology
(Previously EMS 129 Emergency Medical Technician Pharmacology)
1 Credit Hour ● 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 1125 or concurrent enrollment
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 1132 EMS Intravenous / Intraosseous Therapy
(Previously EMS 132 EMS Intravenous / Intraosseous Therapy)
2 Credit Hours ● 48.75 Contact Hours (33.75 Lecture/Lab Combination (1.5 Credit Hours), 15 Clinical (0.5 Credit Hours)
Note: Student must hold a current Colorado EMT certification
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 1133 Advanced Emergencies Medical Emergencies
(Previously EMS 133 Advanced Emergencies Medical Emergencies)
2 Credit Hours ● 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 1125 or concurrent enrollment
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 1135 Advanced Emergency Medical Technician Trauma Emergencies
(Previously EMS 135 Advanced Emergency Medical Technician Trauma Emergencies)
2 Credit Hours ● 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 1125 or concurrent enrollment
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 1138 Basic EMS Simulation Lab
(Previously EMS 138 Basic EMS Simulation Lab)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Integrates the knowledge and skills learned during Emergency Medical Technician (EMT) training. The participants will be exposed to the environment they will function in upon completion of their Emergency Medical Service (EMS) education. Participants will be expected to manage all aspects of an EMS call at the basic life support level from the time of dispatch to patient transfer. This will include radio, verbal, and written communications; legal and ethical issues; response activities; scene assessment and management; patient interaction, assessment, and treatment; patient disposition; and preparation for the next call. Simulations are realistic representations of calls an EMT may encounter and are conducted in "real time." There is no verbalization of any aspect of the call. Unless a safety issue exists, there is no instructor interaction with the learner until the call is complete and the debriefing session occurs. The knowledge base for this course is based on current EMT certification.

EMS 1140 Advanced EMS Simulation Lab
(Previously EMS 140 Advanced Simulation Lab)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Builds upon the knowledge gained in the basic simulation lab. The participants will be exposed to the environment they will function in upon completion of their Emergency Medical Service (EMS) education. Participants will be expected to manage all aspects of an EMS call at the advanced life support level from the time of dispatch to patient transfer. This will include radio, verbal, and written communications; legal and ethical issues; response activities; scene assessment and management; patient interaction, assessment, and treatment; patient disposition, and preparation for the next call. Simulations are realistic representations of calls an advanced life support clinician may encounter and are conducted in "real time." There is no verbalization of any aspect of the call. Unless a safety issue exists, there is no instructor interaction with the learner until the call is complete and the debriefing session occurs. The knowledge base for this course is based on current EMT certification, information gained during the basic simulation lab, and knowledge and skills acquired from advanced life support classes.

EMS 2025 Fundamentals of Paramedic Practice
(Previously EMS 225 Fundamentals of Paramedic Practice)
3 Credit Hours • 90 Contact Hours (45 Lecture/Lab Combination, 45 Practicum)
Prerequisite: BIO 1006
Note: Must have faculty consent to enroll
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 2026 Fundamentals of Paramedic Practice Lab
(Previously EMS 226 Fundamentals of Paramedic Practice Lab)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Serves as the lab experience to coincide with EMS 2025 topics.

EMS 2027 Paramedic Special Considerations
(Previously EMS 227 Paramedic Special Considerations)
3 Credit Hours • 90 Contact Hours (45 Lecture/Lab Combination, 45 Practicum)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Focuses on a comprehensive study of Advanced Life Support Practice.

EMS 2028 Paramedic Special Considerations Lab
(Previously EMS 228 Paramedic Special Considerations Lab)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Serves as the lab experience for those students enrolled in EMS 2027.

EMS 2029 Paramedic Pharmacology
(Previously EMS 229 Paramedic Pharmacology)
3 Credit Hours • 90 Contact Hours (45 Lecture/Lab Combination, 45 Practicum)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
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 2030 Paramedic Pharmacology Lab
(Previously EMS 230 Paramedic Pharmacology Lab)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Serves as the required lab course in the paramedic education program.

EMS 2031 Paramedic Cardiology
(Previously EMS 231 Paramedic Cardiology)
5 Credit Hours • 135 Contact Hours (90 Lecture/Lab Combination, 45 Practicum)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
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 2032 Paramedic Cardiology Lab
(Previously EMS 232 Paramedic Cardiology Lab)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Incorporates a hands-on application of principles of cardiac care in the hospital environment.

EMS 2033 Paramedic Medical Emergencies
(Previously EMS 233 Paramedic Medical Emergencies)
4 Credit Hours • 112.5 Contact Hours (67.5 Lecture/Lab Combination, 45 Practicum)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
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, non-traumatic musculoskeletal disorders, and diseases of the eyes, ears, nose, and throat.

EMS 2034 Paramedic Medical Emergencies Lab
(Previously EMS 234 Paramedic Medical Emergencies Lab)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Focuses on a clinical study of adult and pediatric medical emergencies.

EMS 2035 Paramedic Trauma Emergencies
(Previously EMS 235 Paramedic Trauma Emergencies)
4 Credit Hours • 112.5 Contact Hours (67.5 Lecture/Lab Combination, 45 Practicum)
Note: Must have faculty consent to enroll
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 2036 Paramedic Trauma Emergencies Lab
(Previously EMS 236 Paramedic Trauma Emergencies Lab)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Serves as a lab presenting various acute trauma scenarios.

EMS 2037 Paramedic Internship Preparatory
(Previously EMS 237 Paramedic Internship Preparatory)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Reviews concepts and techniques used in the pre-hospital setting.

EMS 2080 Paramedic Internship I
(Previously EMS 280 Paramedic Internship I)
6 Credit Hours • 270 Contact Hours (Internship)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Serves as the preceptor/internship program for paramedic students.

EMS 2081 Paramedic Internship II
(Previously EMS 281 Paramedic Internship II)
6 Credit Hours • 270 Contact Hours (Internship)
Prerequisite: EMS 2025 or concurrent enrollment
Note: Must have faculty consent to enroll
Serves as the continuation of EMS 2080, preceptor program for paramedic students.

EMS 3010 Behavior Assessment
(Previously EMS 310 Behavior Assessment)
3 Credit Hours ● 45 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
Introduces several assessment tools and techniques for assessing a client in a behavioral setting. 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 3011 Motivational Interviewing EMS
(Previously EMS 311 Motivational Interviewing EMS)
3 Credit Hours ● 45 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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.

EMS 3012 Trauma Informed Care and Assessment
(Previously EMS 312 Trauma Informed Care and Assessment)
3 Credit Hours ● 45 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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 3030 Community Advocacy & Outreach
(Previously EMS 330 Community Advocacy and Outreach)
3 Credit Hours ● 45 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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 3031 Community Assessment
(Previously EMS 331 Community Assessment)
3 Credit Hours ● 45 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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 4025 Fundamentals of Advanced Paramedic Practice
(Previously EMS 425 Fundamentals of Advanced Paramedic Practice)
4 Credit Hours ● 60 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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 4030 Care & Prevention Development Strategies
(Previously EMS 430 Care and Prevention Development Strategies)
3 Credit Hours ● 45 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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 4033 Advanced Paramedic Medical Care
(Previously EMS 433 Advanced Paramedic Medical Care)
4 Credit Hours ● 60 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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 4035 Advanced Paramedic Trauma Care
(Previously EMS 435 Advanced Paramedic Trauma Care)
3 Credit Hours ● 45 Contact Hours (Lecture)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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 4089 Capstone
(Previously EMS 489 Capstone)
5 Credit Hours ● 150 Contact Hours (Clinical)
Note: Admission into the Advanced Paramedic Practitioner BAS required
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.

Emergency Service Administration Courses

ESA 3000 Leadership for Emergency Executives
(Previously ESA 300 Leadership for Emergency Executives)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Permission of Program Faculty required
Focuses on the necessary skills to lead in complex systems. This course covers emergency leadership core competencies including critical thinking, problem solving, visionary strategic planning, organizational communication, negotiation, and conflict resolution skills. Additionally, it introduces ethical obligations in the emergency leadership profession.

ESA 3005 Crisis Communication & Public Relations
(Previously ESA 305 Crisis Communication & Public Relations)
3 Credit Hours • 45 Contact Hours (Lecture)
Develops enhanced communication and interpersonal skills of emergency administrators and responders. This course discusses different components of crisis communication before, during, and after an emergency event and examines the cognitive and affective aspects of communication. Additionally, it covers effective communication applicable to a wide range of audiences and situations.

ESA 3010 Emergency Public Information & Media Training
(Previously ESA 310 Emergency Public Information & Media Training)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines communicating public information in emergency services. This course covers communication technologies, relationships among methods of delivery, effective skills of an effective Public Information Officer (PIO), and effective communication tools for given situations and audiences. Additionally, the course discusses effective oral and written communication, designing and executing a media plan, and developing a public awareness campaign for an emergency event.

ESA 3015 Elements of Emergency Service Administration
(Previously ESA 315 Elements of Emergency Service Administration)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the fundamentals of emergency service administration. This course also examines the multidisciplinary roles and responsibilities of the emergency service administrator in terms of leading and participating in incident management including command, multi-agency coordinating, communicating, and establishing procedures.

ESA 3020 Designing Safer Communities: Pre-incident Planning & Risk Analysis
(Previously ESA 320 Designing Safer Communities: Pre-incident Planning & Risk Analysis)
4 Credit Hours • 60 Contact Hours (Lecture)
Introduces practices employed in risk management including identification of and differentiation between hazards and threats. This course focuses on vulnerability and risk assessment/analysis methodologies and discusses the importance of the country's critical infrastructure and key resources, its vulnerability to attack, and the need for effective public-private partnerships at the local, state and federal government levels to build safer communities.

ESA 3025 Public Policy & Practical Applications in Emergency Services
(Previously ESA 325 Public Policy & Practical Applications in Emergency Services)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers legal systems, laws, regulations, and policy process within the context of disaster policy and demonstrates how political factors play a role in all phases of emergency management. This course provides the analytical tools to examine, interpret and analyze governmental decision making before, during and after disasters.

ESA 3030 Budget & Planning Fundamentals for Emergency Administrators
(Previously ESA 330 Budget & Planning Fundamentals for Emergency Administrators)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers budgeting principles in emergency services including effective and efficient budgeting strategies necessary to support and sustain emergency service organizational operations. Guidelines for procurement of emergency service funding are strongly emphasized. This course describes the auditing processes for private and public organizations and provides scenarios of misappropriations or misuse of funding. Additionally, it introduces lean management and SWOT (Strength, Weakness, Opportunity, Threat) concepts.

ESA 4000 Personnel Management in Emergency Service Agencies
(Previously ESA 400 Personnel Management in Emergency Service Agencies)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on personnel management and human resources as it applies to emergency service agencies in accordance with local, state, and federal laws. Areas of concentration include personnel planning, staffing, supervision, discipline, labor relations, affirmative action, equal employment opportunity, productivity, and compensation. Additionally, it provides training in employee motivation, performance evaluations, contract negotiations, and conducting exit interviews.

ESA 4005 Public Health in Complex Emergencies
(Previously ESA 405 Public Health in Complex Emergencies)
4 Credit Hours • 60 Contact Hours (Lecture)
Focuses on the psychological and physiological responses to disasters, intervention strategies and mental health care for disaster victims and first responders. This course covers the functions of health systems and public health laws. It also covers global issues that have the potential to become crises and discusses the future of emergency service response.

ESA 4010 Terrorism Threat & Risk Analysis
(Previously ESA 410 Terrorism Threat & Risk Analysis)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the theoretical and practical aspects of terrorism and counter terrorism. This course examines the evolution, classifications, targets, and effects associated with terrorism and discusses the necessary tools to conduct terrorism threat assessments. Additionally, it covers the challenges facing the US governmental agencies responsible for addressing terrorism and providing homeland security. Both local and international terrorism will be addressed including action taken by systems to control, prevent and mitigate terrorism.

ESA 4015 Tactical Planning, Response & Recovery
(Previously ESA 415 Tactical Planning, Response & Recovery)
4 Credit Hours • 60 Contact Hours (Lecture)
Expands upon concepts in emergency management introduced in Elements of Emergency Service Administration. This course addresses topics associated with All-Hazards emergency planning, response, and recovery, as well as multi-agency involvement. It also discusses the templates and models used to develop action and operations plans and the complex interface between incident action planning, incident command, and emergency operations at all levels of government.

ESA 4020 Research & Design for Emergency Administration
(Previously ESA 420 Research & Design for Emergency Administration)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers research methodologies and statistical analysis required for composing a research proposal. Databases will be utilized for decision-making, fund requesting and policy development. This course covers barriers to conducting research in the field of emergency services and strategies for eliminating them. Additionally, it provides tips on effective oral and visual presentations as it relates to proposals.

ESA 4089 Capstone: Emergency Services Administration
(Previously ESA 489 Capstone: Emergency Services Administration)
6 Credit Hours • 90 Contact Hours (Lecture)
Note: Permission of Program Faculty required
Provides an opportunity to demonstrate a culmination of learning through integrative experience within a given program of study.

Engineering Courses

EGG 1020 Engineering Methodologies
(Previously EGG 102 Introduction to Engineering Methodologies)
3 Credit Hours • 67.5 Contact Hours (22.5 Lecture (1.5 Credit Hours), 45 Lab (1.5 Credit Hours))
Prerequisite: *MAT 1340 or higher*
Presents the fundamental principles of engineering methodologies with integration of concepts in a laboratory setting. This course focuses on collaboration in the engineering design process while developing scientific and engineering related projects with a focus on professional communication in engineering.

EGG 1040 Engineering Projects
(Previously EGG 140 Engineering Projects)
3 Credit Hours • 67.5 Contact Hours (22.5 Lecture (1.5 Credit Hours), 45 Lab (1.5 Credit Hours))
Prerequisite: *MAT 1340 or higher*
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 1060 Introduction to Engineering Computing
(Previously EGG 145 Introduction to Engineering Computing)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: *Concurrent enrollment in MAT 2410 or higher*
Introduces techniques for designing, implementing, and testing computer programs in higher-level programming languages to solve problems common in engineering domains. This course uses elementary numerical methods, visualization, and tools from engineering.

EGG 2011 Engr Mechanics I – Statics
(Previously EGG 211 Engr Mechanics I - Statics)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 2410 or higher, PHY 2111 or concurrent enrollment
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 2012 Engineering Mechanics II (Dynamics)
(Previously EGG 212 Engineering Mechanics II (Dynamics))
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: *EGG 2011*
Presents content in particle kinematics, including 2-D motion in x-y coordinates, normal tangential coordinates, and polar

coordinates; rigid body kinematics, including relative velocities and relative accelerations; and rigid body kinetics, including the equation of motion, work and energy, linear impulse-momentum, and angular momentum.

EGG 2020 Thermodynamics
(Previously EGG 230 Thermodynamics)
3 Credit Hours ● 45 Contact Hours (Lecture)
Prerequisite: MAT 2410 or higher, PHY 2111
Explores fundamental concepts and basic theory, including first and second laws of thermodynamics, thermodynamic functions, properties, states, pure substances, and chemical and phase equilibrium.

EGG 2030 Mechanics of Solids
(Previously EGG 206 Mechanics of Solids)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: EGG 2011
Covers shear forces and bending moment, torsion, stresses in beams, deflection in beams, matrix analysis of frame structures, analysis of stress and strain in 2-D and 3-D (field equations, transformations), energy methods, stress concentrations, and columns.

EGG 2050 Engineering Economics
(Previously EGG 243 Engineering Economics)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 1340 or higher
Introduces methods to analyze cost/benefit elements in technical operations and project proposals, and to compare alternatives, using time value of money concepts. Emphasis is on practical applications and techniques which can be applied to many facets of engineering and commerce, including design, development, production, construction operation, improvements, and upgrades. Solutions include the use of graphical and numerical solution methods, interest tables and factors, use of manual calculations and spreadsheet methods.

Engineering Graphics Technology Courses

EGT 1100 Print Reading
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on the interpretation of mechanical shop and working drawings. Examines drawing formats, view selection, hardware, symbols, dimensioning, and tolerancing systems utilizing the American Society of Mechanical Engineers (ASME) standard.

EGT 1101 Mechanical Design I
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides the training to develop skillsets on how to produce technical drawings utilizing the latest technologies. Course will develop skills in hand lettering/sketching techniques and the use of a Computer Aided Design (CAD) based drawing system. Course covers how to develop technical drawings demonstrating multi-view orthographic projections, auxiliary views, section views, and beginning dimensioning concepts based on ANSI/ASME standards.

EGT 1102 Mechanical Design II
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1101 or EGT 1101
Provides the training and skillsets on how to produce technical drawings that include hardware, threads, springs, and pattern developments. Develops skills on the application of dimensioning systems and the application of applying tolerances to produce baseline, ordinate, tabulated, chart, and rectangular coordinate dimensioning based on American Society of Mechanical Engineers (ASME) standards.

EGT 1110 IDEA: Introduction to Design and Engineering Applications
(Previously EGT 140 IDEA: Introduction to Design and Engineering Applications)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides students with opportunities to engage with an industry client on a real-world, open-ended engineering design problem. Students will develop professional skills and knowledge using Computer Aided Drafting (CAD) as a primary tool. The course covers human-centered design and the role of engineering in a sustainable society. Students will cultivate an understanding of the differences in engineering disciplines while working in interdisciplinary teams. Written and verbal communication skills will also be covered.

EGT 2303 Applied Dimension & Tolerance
(Previously EGT 103 Applied Dimension & Tolerance)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1100, CAD 1101, CAD 1102 or concurrent enrollment
Focuses on industrial dimensioning practices, enables the student to develop skills in dimensioning techniques and learn to apply the ASME Y14.5 dimensioning standard.

EGT 2305 Geometric Dimension & Tolerance
(Previously EGT 205 Geometric Dimension & Tolerance)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1100, EGT 2303
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 2310 Mechanical Design III
(Previously EGT 210 Mechanical Design III)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisites: CAD 2455, CAD 2456, EGT 2303
Provides the training and skillsets to produce industrial working drawings and working models based on ASME standards. Examines industry-based design management models and the process of controlling drawing revisions. Design concepts for linkages, gears, bearings, belt drives, and chain drives will be covered. Examines part function and their relationships to develop detail, assembly, and subassembly drawings including a list of materials.

English Courses

ENG 0077 Studio 131
(Previously ENG 077 Studio 131)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite AAA 1009 or concurrent enrollment
Note: ENG 0077 must be taken concurrently with ENG 1031
Integrates and contextualizes reading and writing strategies tailored to co-requisite ENG 1031 coursework. Students will read and understand complex materials and respond to ideas and information through technical writing.

ENG 0094 Studio 121
(Previously CCR 094 Studio 121)
3 Credit Hours • 45 Contact Hours (Supplemental Academic Instruction)
Note: ENG 0094 must be taken concurrently with ENG 1021
Integrates and contextualizes reading and writing strategies tailored to co-requisite ENG 1021 coursework.

ENG 1015 Technical English & Communication
(Previously ENG 115 Technical English & Communication)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the written and oral communication needs of students in vocational and technical fields. Enables the student to practice written, oral, reading, reasoning, and interpersonal communication skills in order to become successful (or to remain successful) in the workplace.

ENG 1017 Grammar, Usage & Style for the Professional Writer
(Previously ENG 117 Grammar, Usage & Style for the Professional Writer)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on grammar, usage, and style issues facing the individual who writes on the job, either as a technical writer or a technical professional whose job involves a substantial writing component. Emphasizes knowledge and skills needed for clear, direct, competent communication. Introduces grammatical theory and practice and conventions of usage in English. Covers matters of style, particularly as they relate to clarity for a target audience.

ENG 1018 Designing Online Documentation
(Previously ENG 118 Designing Online Documentation)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on developing technical documents that are delivered to users on-line, such as online manuals and online help information. Emphasizes content, organization, presentation, and style of online documentation. Introduces hypertext and web publishing concepts, as well as project cycle management, working as part of a documentation team, and collaboration with technical experts.

ENG 1021 English Composition I: CO1
(Previously ENG 121 English Composition I: CO1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Emphasizes the planning, writing, and revising of compositions, including the development of critical and logical thinking skills. This course includes a wide variety of compositions that stress analytical, evaluative, and persuasive/argumentative writing.

ENG 1022 English Composition II: CO2
(Previously ENG 122 English Composition II: CO2)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite ENG 1021 or ENG 1031
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 argumentative compositions.

ENG 1031 Technical Writing I: CO1
(Previously ENG 131 Technical Writing I: CO1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Note: Student must be computer literate
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 1032 Technical Writing II
(Previously ENG 132 Technical Writing II)
3 Credit Hours • 45 Contact Hours (Lecture)
Expands and refines the objectives of ENG 1031, emphasizing formal presentations, both written and oral.

ENG 2001 English Composition III: CO3
(Previously ENG 201 English Composition III: CO3)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides the skills necessary to enter into higher-level undergraduate academic discourse or professional workplace writing. This course extends rhetorical knowledge and develops critical reading, thinking, and writing strategies in multiple specialized areas of discourse beyond what is encountered in previous composition courses.

ENG 2005 Technical Editing
(Previously ENG 205 Technical Editing)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on editing technical documents of varying lengths and types, from memos to product manuals. Emphasizes consistency, readability, and conformity to an organization's style manual. Introduces conventions governing content, organization, presentation, and style of technical documents. Covers how to develop a style manual. Introduces concepts of project cycle management, working as part of a documentation team, and collaboration with technical experts.

ENG 2021 Creative Writing I: AH1
(Previously ENG 221 Creative Writing I: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2022 Creative Writing II
(Previously ENG 222 Creative Writing II)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides continued development of written expression in the 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. This course is a creative writing workshop centered around producing and critiquing creative work.

ENG 2026 Fiction Writing
(Previously ENG 226 Fiction Writing)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides techniques for analyzing and writing fiction, including the study of form and technique with an emphasis on the writing process.

ENG 2027 Poetry Writing
(Previously ENG 227 Poetry Writing)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides strategies for analyzing and writing poetry, including the study of form and craft with an emphasis on the revision process. Sample texts will cover a diverse range of works from various cultures and perspectives.

ENG 2030 Creative Nonfiction
(Previously ENG 230 Creative Nonfiction)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2031 Literary Magazine
(Previously ENG 231 Literary Magazine)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2035 Rhetoric & Propaganda
(Previously ENG 235 Rhetoric & Propaganda)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines classical and modern theories of rhetoric, understood as effective, ethical means of persuasion, and the ways in which propaganda departs from these means. Enables the student to apply theories of rhetoric and propaganda to examples of presidential rhetoric, Nazi and Soviet propaganda, and other examples of persuasive writing. Includes the study of visual rhetoric with students constructing criteria for identifying visual propaganda, and studying the complex relationship, historically and in the present, between propaganda, democracy, advertising, and mass media.

ENG 2080 Internship
(Previously ENG 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Provides structured, guided, and individualized experience that is tailored around the interests and needs of students who may continue in English studies.

English as a Second Language Courses

ESL 0011 Basic Pronunciation
(Previously ESL 011 Basic Pronunciation)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: LOEP LS score of 35 or higher
Provides listening and speaking activities that help students recognize and produce English vowel and consonant sounds and common stress and intonation patterns.

ESL 0012 Intermediate Pronunciation
(Previously ESL 012 Intermediate Pronunciation)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: LOEP LS score of 35 or higher
Provides listening, speaking, and reading activities that help students recognize and produce a variety of stress and intonation patterns in English. Helps students to produce problematic English sounds.

ESL 0021 Basic Grammar
(Previously ESL 021 Basic Grammar)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: LOEP LS score of 25-57
Develops competency in basic grammatical structures through oral and written practice.

ESL 0022 Intermediate Grammar
(Previously ESL 022 Intermediate Grammar)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite LOEP LU score of 58-82
Builds on basic grammar structures. This course develops competency in intermediate grammar structures with continued emphasis on oral and written communication.

ESL 0023 Advanced Grammar
(Previously ESL 023 Advanced Grammar)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: ESL 0022, ESL 0042, ESL 0052; or LOEP LU score of 83-107
Builds on intermediate level grammar structures. This course develops competency in advanced grammatical structures with increased emphasis on written communication.

ESL 0031 Basic Listening & Speaking
(Previously ESL 031 Basic Listening & Speaking)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: LOEP LU score of 35-63
Provides listening and speaking activities that help the student communicate more competently. Provides practice with pronunciation, vocabulary, and basic grammatical patterns.

ESL 0032 Intermediate Listening & Speaking
(Previously ESL 032 Intermediate Listening & Speaking)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ESL 0021, ESL 0031, ESL 0041; or LOEP LU score of 64-82
Teaches listening, pronunciation, and conversation skills. Increases speed and accuracy in speaking through free and guided conversational practice.

ESL 0041 Basic Reading
(Previously ESL 041 Basic Reading)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: LOEP RS score 25-62
Improves comprehension of simple written texts through vocabulary building and reading strategies.

ESL 0042 Intermediate Reading
(Previously ESL 042 Intermediate Reading)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ESL 0021, ESL 0041; or LOEP RS score 63-87
Helps the student read more quickly and accurately and understand a variety of intermediate level reading material.

ESL 0043 Advanced Reading
(Previously ESL 043 Advanced Reading)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ESL 0022, ESL 0042, ESL 0052; or LOEP RS score 88-112
Prepares the student for academic reading assignments. Assists the student to read more accurately and critically through the development of vocabulary knowledge and reading skills. Introduces research skills.

ESL 0052 Intermediate Composition
(Previously ESL 052 Intermediate Composition)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ESL 0021, ESL 0041
Introduces the fundamentals of paragraph organization and development. Emphasizes development of sentence variety and grammatical competency within well-organized paragraphs.

ESL 0053 Advanced Composition
(Previously ESL 053 Advanced Composition)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: ESL 0022, ESL 0042, ESL 0052
Reviews paragraph organization and develops the skill of writing essays using selected rhetorical modes. This course emphasizes accurate use of advanced grammatical structures. Includes summarizing, paraphrasing, and research writing.

ESL 0054 ESL Reading & Composition
(Previously ESL 054 ESL Reading & Composition)
5 Credit Hours • 75 Contact Hours (Lecture)
Integrates reading and composition skills. The course reviews paragraph organization and develops the skill of writing essays using selected rhetorical modes. It emphasizes accurate use of advanced grammatical structures. Includes summarizing, paraphrasing, and research writing. In addition, the course focuses on strategies for vocabulary development, improved reading comprehension, and enrichment.

Entrepreneurship Course

ENP 1005 Introduction to Entrepreneurship
(Previously ENP 105 Introduction to Entrepreneurship)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

Environmental Science Courses

ENV 1010 Natural Disasters: SC2
(Previously ENV 110 Natural Disasters: SC2)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces different types of natural hazards, their causes, effects, and what can be done to reduce the risks to human populations. Scientific advances related to understanding, predicting, and preparing for natural disasters are discussed. This course also covers anthropogenic changes to Earth systems, which may be increasing the frequency and severity of these events.

ENV 1111 Environmental Science with Lab: SC1
(Previously ENV 101 Environmental Science with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Introduces the basic concepts of ecology and the relationship between environmental problems and biological systems. This course includes interdisciplinary discussions on biology, chemistry, geology, energy, natural resources, pollution, and environmental protection. A holistic approach is used when analyzing how the foundations of natural sciences interconnect with the environment.

Ethnic Studies Course

ETH 2024 Introduction to Chicano Studies
(Previously ETH 224 Introduction to Chicano Studies)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to skills development in multicultural education. Covers Chicano history, migration and labor, education, law, and Chicano culture.

Finance Courses

FIN 1015 Retail Banking
(Previously FIN 115 Retail Banking)
2 Credit Hours ● 30 Contact Hours (Lecture)
Serves as an introductory course intended for newer employees in the saving institutions business and for established employees desiring to learn more about the business in which they work. Covers the origin and growth of saving institutions, their roles in the world of business, their intermediary function, their relationship to the housing industry and markets, the regulatory bodies and government agencies with which institutions work, and the competitive arena in which they operate. Enables the student to acquire a solid foundation for more specialized areas of study.

FIN 1050 Principles of Banking
(Previously FIN 105 Principles of Banking)
3 Credit Hours ● 45 Contact Hours (Lecture)
Explores nearly every aspect of banking as a solid foundation for any career in the financial services industry. Just as the industry is constantly changing, this course is continually being revised to provide specific up-to-date information.

FIN 1060 Consumer Economics
(Previously FIN 106 Consumer Economics)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on consumer effectiveness based on consumer choice theory, maximizing income through informed decision making, product utility, and customer satisfaction.

FIN 2010 Principles of Finance
(Previously FIN 201 Principles of Finance)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides factual knowledge of financial institutions and the monetary system used in the United States in relationship to the global economy. Examines tools and techniques such as capital budgeting, time value of money, analysis of financial statements, cost of capital, and risk analysis to analyze business decisions, plan and determine project and firm value, and evaluate sources of financing.

FIN 2040 Law & Banking Principles
(Previously FIN 240 Law and Banking Principles)
2 Credit Hours ● 30 Contact Hours (Lecture)
Serves as a banker's guide to law and legal issues with special emphasis on the Uniform Commercial Code. Examines sources and applications of banking law, contracts, bankruptcy, torts and crimes, real and personal property, and the legal implications of consumer lending.

FIN 2087 Cooperative Education
(Previously FIN 287 Cooperative Education)
3 Credit Hours ● 45 Contact Hours (Co-operative Education)
Note: Must have instructor approval
Provides students an opportunity to gain practical experience in applying their skills and/or 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 or work site supervisor.

Fire Science Technology Courses

FST 1000 Firefighter I
(Previously FST 100 Firefighter I)
9 Credit Hours • 202.5 Contact Hours (Lecture/Lab Combination)
Note: Students must complete the application, meet with the Program Director, and have the Directors permission and signature prior to enrolling in this course. Applicants must have proof of age 18 by the first day of class (no exceptions). Must possess a high school diploma or GED and must be eligible to enroll in ENG 1021 or provide proof of completion of ENG 1021, or its equivalent, with a grade of C or higher. In order to receive your Colorado State Firefighter I certification, you must have your Colorado State Hazardous Materials Operations certification. We highly recommend that you either take FST 1007 Hazardous Materials Operations before or concurrently with FST 1000 Firefighter I.
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.

FST 1001 Firefighter II
(Previously FST 101 Firefighter II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
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 1002 Principles/Emergency Services
(Previously FST 102 Principles/Emergency Services)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1003 Fire Behavior & Combustion
(Previously FST 103 Fire Behavior & Combustion)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores the theories and fundamentals of how and why fires start, spread, and are controlled.

FST 1005 Building Construction for Fire Protection
(Previously FST 105 Building Construction for Fire Protection)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1006 Fire Prevention
(Previously FST 106 Fire Prevention)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1007 Hazardous Materials Operations (Level I)
(Previously FST 107 Hazardous Materials Operations (Level I))
3 Credit Hours • 45 Contact Hours (Lecture)
Note: In order to receive your Colorado State Firefighter I certification, you must have your Colorado State Hazardous Materials Operations certification. We highly recommend that you either take FST 1007 Hazardous Materials Operations before or concurrently with FST 1000 Firefighter I. Please see an FST advisor for more information.
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 1009 Occupational Safety & Health for Fire
(Previously FST 109 Occupational Safety & Health for Fire)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1010 Job Placement & Assessment
(Previously FST 110 Job Placement & Assessment)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1026 Vehicle Extrication Awareness Level
(Previously FST 126 Vehicle Extrication Awareness Level)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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 1060 Candidate Physical Abilities Test Prep
(Previously FST 160 Candidate Physical Abilities Test Prep)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Grading: P/F only
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 2001 Instructional Methodology
(Previously FST 201 Instructional Methodology)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2002 Strategy & Tactics
(Previously FST 202 Strategy & Tactics)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

FST 2003 Fire Hydraulics & Water Supply
(Previously FST 203 Fire Hydraulics & Water Supply)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2005 Fire Investigation I
(Previously FST 205 Fire Investigation I)
3 Credit Hours • 45 Contact Hours (Lecture)
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 fire setter, and types of fire causes.

FST 2006 Fire Company Supervision & Leadership (Fire Officer I)
(Previously FST 206 Fire Company Supervision & Leadership (Fire Officer I))
3 Credit Hours • 45 Contact Hours (Lecture)
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 2007 Firefighting Strategy & Tactics II
(Previously FST 207 Firefighting Strategy & Tactics II)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2009 Fire Protection Systems
(Previously FST 209 Fire Protection Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2051 Legal Aspects of Fire Service
(Previously FST 251 Legal Aspects of Fire Service)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2055 Fire Service Management
(Previously FST 255 Fire Service Management)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2057 Fire Department Administration
(Previously FST 257 Fire Department Administration)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2058 Wildland Fire Incident Management & Organization
(Previously FST 258 Wildland Fire Incident Management & Organization)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces and develops supervisory and decision-making skills for fireline management individuals. Covers (1) First Attack Incident Commander, (2) Crew Supervisor, (3) Incident Commander Multi-resource, and (4) Task Force/Strike Team Leader. All four courses are certifiable by the Incident Command System under NIMS and recognized by the National Wildfire

Coordinating Group. Covers fireline safety, size-up, incident planning, ordering, tactics, strategies, and administrative duties.

FST 2059 Wildland Firefighting Strategy & Tactics
(Previously FST 259 Wildland Firefighting Strategy & Tactics)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on management of uncontrolled fire burning, urban/wildland interface, strategy and tactics used in controlling wild land fires, prevention methods, and incident command practices.

FST 2080 Internship
(Previously FST 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Note: To be eligible for an FST internship, student will have completed 75% of the AAS coursework with at least a 3.0 GPA.
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.

Fire Science Wildland Courses

FSW 1000 S-190 Introduction to Wildland Fire Behavior
(Previously FSW 100 S-190 Introduction to Wildland Fire Behavior)
1 Credit Hour • 15 Contact Hours (Lecture)
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 Firefighting Training S-130.

FSW 1001 S-130 Firefighting Training
(Previously FSW 101 S-130 Firefighting Training)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Provides entry-level firefighter skills. A version of the L-180, Human Factors on the Fireline, is included as part of the course. Credit should be issued for S-130.

FSW 1053 S-290 Intermediate Wildland Fire Behavior
(Previously FSW 153 S-290 Intermediate Wildland Fire Behavior)
2 Credit Hours • 30 Contact Hours (Lecture)
Designed to prepare the prospective supervisor to undertake safe and effective fire management operations.

French Courses

FRE 1001 Conversational French I
(Previously FRE 101 Conversational French I)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces beginning students to conversational French and focuses on understanding and speaking French. Covers basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

FRE 1011 French Language I
(Previously FRE 111 French Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
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.

FRE 1012 French Language II
(Previously FRE 112 French Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: FRE 1011
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.

FRE 2011 French Language III: AH4
(Previously FRE 211 French Language III: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: FRE 1012
Continues the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing, and cultural competency in the French language. This course is conducted predominantly in French.

FRE 2012 French Language IV: AH4
(Previously FRE 212 French Language IV: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: FRE 2011
Continues the development of increased functional proficiency at intermediate mid-level in speaking, aural comprehension, reading, writing, and cultural competency in the French language. This course is conducted predominantly in French.

Geography Courses

GEO 1005 World Regional Geography: SS2
(Previously GEO 105 World Regional Geography: SS2)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

GEO 1006 Human Geography: SS2
(Previously GEO 106 Human Geography: SS2)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

GEO 1011 Physical Geography: Landforms with Lab: SC1
(Previously GEO 111 Physical Geography: Landforms with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Examines 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.

GEO 1012 Physical Geography: Weather, Climate and Ecosystems with Lab: SC1
(Previously GEO 112 Physical Geography: Weather, Climate and Ecosystems with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Introduces the principles of meteorology, climatology, ecology, and regional climate classification. The course investigates the geographic factors which influence climate and ecosystems such as topography, elevation, winds, ocean currents, and latitude.

GEO 1060 Global Climate Change: SC2
3 Credit Hours • 45 Contact Hours (Lecture)
Presents global climate change from an Earth science perspective including paleoclimatology, atmospheric science, vegetation, fluvial systems, and oceanic circulation. This course analyzes observed and predicted impacts of climate change on the world's terrestrial regions. This course examines interrelationships among economy, society, public policy, and geographic variation in greenhouse gas emissions at national and regional scales. This course also discusses efforts to mitigate climate change and its causes and/or adaptations to global climate change.

GEO 2010 Careers & Research in the GeoSciences
1 Credit Hour • 15 Contact Hours (Lecture)
Introduces students to current research, research tools, techniques, and terminology within the geosciences. Explores and prepares students for outside internship opportunities for community college students in the geosciences and related fields. Explores different professions within the geosciences. Explains different coursework needed to best achieve academic success at four-year universities and careers beyond graduation. Provides experience preparing resumes and completing internship and job applications.

Geology Courses

GEY 1044 Introduction to Cave Science & Karst Science
(Previously GEY 143 Introduction to Cave Science & Karst Science)
2 Credit Hours • 30 Contact Hours (Lecture)
Introduces the science of caves, with emphasis on their geology. Course topics include cave development, the importance of karst geology and hydrology, cave speleothems, and organisms adapted to living in caves.

GEY 1108 Geology of U.S. National Parks: SC2
(Previously GEY 108 Geology of U.S. National Parks: SC2)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Explores significant geologic features and the processes that create them using examples and case studies from the U.S. National Park System. Weathering and erosional landforms, caves and reefs, coasts, glaciers, volcanoes, and complex mountains are discussed. Fundamental geologic concepts including plate tectonics, deep time, and rock classification are introduced and incorporated throughout the course.

GEY 1111 Physical Geology with Lab: SC1
(Previously GEY 111 Physical Geology with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
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 1112 Historical Geology with Lab: SC1
(Previously GEY 112 Historical Geology with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math, GEY 1111
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 1135 Environmental Geology with Lab: SC1
(Previously GEY 135 Environmental Geology with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
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 1155 General Oceanography with Lab:SC1
(Previously GEY 216 General Oceanography with Lab:SC1)
4 Credit Hours ● 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Provides an introduction to modern geological and physical oceanography, with lesser emphasis on chemical and biological oceanography. Plate tectonics, seafloor geomorphology, marine sediments, coasts, physical and chemical properties of seawater, marine resources, environmental concerns, and water movement in currents, waves, and tides are among the topics covered. This course includes laboratory experience.

GEY 2205 Geology of Colorado
(Previously GEY 205 The Geology of Colorado)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers the geologic history of Colorado and notable geologic features present in the state. Emphasis is on the formation of mountain ranges, significant rock types, ore deposits, fossils, and landforms.

German Courses

GER 1011 German Language I
(Previously GER 111 German Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
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.

GER 1012 German Language II
(Previously GER 112 German Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: GER 1011
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.

GER 2011 German Language III: AH4
(Previously GER 211 German Language III: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: GER 1012
Continues the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing and cultural competency in the German language. This course is conducted predominantly in German.

GER 2012 German Language IV: AH4
(Previously GER 212 German Language IV: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: GER 2011
Continues the development of increased functional proficiency at intermediate mid-level in speaking, aural comprehension, reading, writing and cultural competency in the German language. This course is conducted predominantly in German.

Health and Wellness Courses

HWE 1001 Community First Aid & CPR
(Previously HWE 103 Community First Aid & CPR)
1 Credit Hour • 15 Contact Hours (Lecture)
Grading: P/F only
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 1005 American Heart Association Heartsaver First Aid CPR and AED
(Previously HWE 118 American Heart Association Heartsaver First Aid CPR and AED)
0.5 Credit Hours ● 7.5 Contact Hours (Lecture)
Grading: P/F only
Provides training in lifesaving skills for responding to first aid and cardiopulmonary emergencies. This course provides the skills and knowledge for the 2-year certification from the American Heart Association (AHA) Heartsaver First Aid, Cardiopulmonary Resuscitation (CPR), and Automated External Defibrillator (AED).

HWE 1019 Skills & Methods of Teaching Fitness Instruction
(Previously HWE 137 Skills & Methods of Teaching Fitness Instruction)
3 Credit Hours ● 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on preparing students to lead a variety of group exercise classes with an entry-level skill set encompassing a variety of choreographed or non-choreographed activities. Classes may include aerobics (step and floor), mind body (yoga/pilates), or specialty (kickboxing, stability ball, senior classes, and boot camp).

HWE 1050 Human Nutrition
(Previously HWE 100 Human Nutrition)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces basic principles of nutrition with emphasis on personal nutrition. This course focuses on macro and micronutrients 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 1055 Lifecycle Nutrition
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the nutritional needs of humans as they move through the life cycle stages from pre-conception through older adult years.

HWE 1061 Fitness & Wellness
(Previously HWE 124 Fitness & Wellness)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Provides information on fitness and wellness and serves as a guide to design, implement, and evaluate a complete personal fitness and wellness program.

HWE 1062 Health & Fitness
(Previously HWE 111 Health & Fitness)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Explores the six components of wellness: physical, social, intellectual, spiritual, emotional, and occupational. Topics include health risks, wellness behaviors, and personal behavior change in

the areas of nutrition; exercise; substance abuse; stress management; cardiovascular and cancer risk factors; the aging process; and violence, death, and dying in our society. Provides tools to complete self-assessments and develop a wellness program for a healthier lifestyle across a lifespan.

HWE 1064 Weight Management & Exercise
(Previously HWE 109 Weight Management & Exercise)
2 Credit Hours ● 30 Contact Hours (Lecture)
Offers guided instruction in weight management. Emphasis is placed on the development of weight management programs and the role of exercise in maintaining weight loss.

HWE 1065 Introduction to Exercise Health Sciences
(Previously HWE 125 Introduction to Exercise Health Sciences)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the discipline of kinesiology, including the effects of physical activity and exercise on the human physiology and human experience. The course also explores career options including expectations of professionals in the field.

HWE 1068 Certified Personal Trainer Preparatory Course
(Previously HWE 255 Certified Personal Trainer Preparatory Course)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides knowledge and skills to prepare for a nationally recognized personal training certification. The course includes the development and implementation of exercise programs for healthy populations, and for individuals with medical clearance to exercise.

HWE 129 Wilderness First Responder
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Provides the student with those skills and emergency medical care techniques used by guides, trip leaders and others providing primary care in backcountry settings. The student will be able to respond correctly to those medical and trauma situations commonly encountered when entry into the EMS system is delayed or unlikely.

HWE 2060 Exercise, Nutrition & Body Composition
(Previously HWE 237 Exercise, Nutrition & Body Composition)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on the concepts of improved performance in all fitness areas. Emphasis is placed on how carbohydrates, fat, and protein impact performance, and the relationship between metabolism and weight for all populations. Addresses unhealthy diets, eating patterns, and behavior modifications to change negative food relationships within a variety of populations.

HWE 2062 Physiology of Exercise
(Previously HWE 245 Physiology of Exercise)
3 Credit Hours ● 45 Contact Hours (Lecture)
Introduces the physiological effects and responses by the body to the stressor of exercise. This course focuses on fundamental concepts of exercise physiology including metabolic, nervous, cardiovascular, respiratory, and musculoskeletal systems, and the significance of these effects on health and performance.

HWE 2063 Exercise Testing Prescription
(Previously HWE 248 Exercise Testing Prescription)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides the opportunity to conduct and practice fitness assessments. Fitness test results are evaluated and interpreted to develop an individualized exercise prescription that adheres to national standards.

HWE 2064 Health & Wellness Coaching
(Previously HWE 256 Health and Wellness Coaching)
3 Credit Hours ● 45 Contact Hours (Lecture)
Focuses on behavioral change strategies and goal setting for adopting a healthier lifestyle with emphasis on exercise, physical activity, stress management, and nutrition. Methods of coaching topics include how to overcome obstacles that impede success. This course is geared towards the health and fitness professional.

Health Professional Courses

HPR 1003 Success Seminar
(Previously HPR 111 Success Seminar)
1 Credit Hour • 15 Contact Hours (Lecture)
Explores and engages success strategies for students entering the allied health programs. Included are topics related to support team building, learning styles, study skills, note taking, and test-taking specific to the health care professional programs.

HPR 1005 Orientation to Health Careers
(Previously HPR 143 Orientation to Health Careers)
3 Credit Hours ● 45 Contact Hours (Lecture)
Compares various careers, ethics, and work attributes required in the health care field. This course includes an introduction to theory of leadership skills, community awareness, and the student organization HOSA (Health Occupations Students of America).

HPR 1006 Customer Service in Healthcare
(Previously HPR 101 Customer Service in Healthcare)
2 Credit Hours • 30 Contact Hours (Lecture)
Instructs students in customer service theory and techniques specifically in the healthcare arena. This course will discuss therapeutic communication, conflict resolution, and negotiation, as well as employee/employer relations. Exploration of diverse populations and cultural sensitivity will be addressed.

HPR 1008 Law & Ethics for Health Professions
(Previously HPR 106 Law & Ethics for Health Professions)
2 Credit Hours • 30 Contact Hours (Lecture)
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 1011 CPR for Professionals
(Previously HPR 102 CPR for Professionals)
0.5 Credit Hours • 7.5 Contact Hours (Lecture)
Grading: P/F only
Meets the requirement for American Red Cross Professional Rescuer CPR or American Heart Association Basic Life Support for those who work in Emergency Services, Health Care, 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 1017 Anatomical Kinesiology
(Previously HPR 117 Anatomical Kinesiology)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Studies the Anatomical Basis of Human Movement.

HPR 1020 Phlebotomy
(Previously HPR 112 Phlebotomy)
4 Credit Hours • 135 Contact Hours (45 Lecture/Lab Combination, 90 Practicum)
Note: Must be accepted into Phlebotomy program through application process. Program Coordinator approval needed to register.
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 1039 Medical Terminology
(Previously HPR 139 Medical Terminology)
2 Credit Hours ● 30 Contact Hours (Lecture)
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.

HPR 1045 Medical Record Terminology
(Previously HPR 208 Medical Record Terminology)
2 Credit Hours • 30 Contact Hours (Lecture)
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 1050 Basic EKG Interpretation
(Previously HPR 190 Basic EKG Interpretation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
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 1079 Seminar
(Previously HPR 179 Seminar)
2 Credit Hours • 30 Contact Hours (Lecture)
Provides students with an experiential learning opportunity.

HPR 2011 Advanced Cardiac Life Support
(Previously HPR 120 Advanced Cardiac Life Support)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Grading: P/F only
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 2013 Pediatric Advanced Life Support
(Previously HPR 130 Pediatric Advanced Life Support)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Grading: P/F only
Provides students the needed information and skills as required by health care agencies for pediatric emergencies.

HPR 2020 Advanced Phlebotomy
(Previously HPR 113 Advanced Phlebotomy)
4 Credit Hours • 135 Contact Hours (45 Lecture/Lab Combination, 90 Practicum)
Note: Must be accepted into Phlebotomy program through application process. Program Coordinator approval to register.
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.

Heating, Air Conditioning and Refrigeration Technology Courses

HVA 1002 Basic Refrigeration
(Previously HVA 102 Basic Refrigeration)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Introduces the basic theory of refrigeration systems, components, charging, recycling, and evacuation of refrigeration units.

HVA 1005 Electricity for HVAC/R
(Previously HVA 105 Electricity for HVAC/R)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Teaches resistance, current, voltage, and power in AC and DC circuits; measurements; computations of series and parallel circuits; circuit analysis and troubleshooting with basic test equipment.

HVA 1010 Fundamentals of Gas Heating
(Previously HVA 110 Fundamentals of Gas Heating)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Introduces students to the fundamentals of gas heating. Students work in a classroom and shop environment. Topics include the basics of gas heating systems, operation of gas valves and burners, gas pipe system design, gas piping system code requirements, and basic code requirements for heating systems.

HVA 1011 Piping Skills for HVAC
(Previously HVA 111 Piping Skills for HVAC)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Studies the different types of tubing and piping materials used in HVAC/R applications. Studies the proper tubing and piping installation methods used in the HVAC/R field. Subjects covered will be the proper cutting and bending procedures including, pipe math and how to make piping offsets. Common types of piping joints will be discussed, including, swaging, flaring, soldering, and brazing. Also covered will be cutting and threading of steel pipe and other alternative mechanical piping connections. Shop projects will include both bench projects and also mock up installation projects.

HVA 1012 R-410a
(Previously HVA 112 R-410a)
1 Credit Hour • 15 Contact Hours (Lecture)
Note: End of course certification test fee is a separate fee in addition to normal course fees
Enlightens the student on conditions required for proper operation with R-410a.

HVA 1013 Refrigerant Recovery Training
(Previously HVA 113 Refrigerant Recovery Training)
1 Credit Hour • 15 Contact Hours (Lecture)
Note: End of course certification test fee is a separate fee in addition to normal course fees
Explains the laws regarding refrigerant recovery. The course includes hands-on use of recovery equipment. Upon successful completion of this course students will be prepared to take the EPA certification test. Test is offered following the class. Test fee is not included in course fee.

HVA 1018 Customer Soft Skills (Customer Services & Ethics)
(Previously HVA 118 Customer Soft Skills (Customer Services & Ethics))
2 Credit Hours • 30 Contact Hours (Lecture)
Introduces the need for outstanding Customer Service Soft Skills. Teaches the student the proper steps that need to be taken to have good customer service skills that will lead to a lasting relationship with the customer.

HVA 1020 Green Technology Awareness
(Previously HVA 120 Green Technology Awareness)
1 Credit Hour • 15 Contact Hours (Lecture)
Introduces the student to basic understanding of Green concepts, terminology, systems and the latest in technology. Also provides information on local rebates through local utilities. An end of course assessment – certification test will be given. Test fee is not included in course fee but is a pass-thru fee.

HVA 1032 Air Conditioning & Refrigeration Controls
(Previously HVA 132 Air Conditioning & Refrigeration Controls)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Continues HVA 1005. The course applies the knowledge of basic electricity to controls related to air conditioning and refrigeration equipment. The course also works on reading and drawing schematic and ladder diagrams.

HVA 1041 Sheet Metal Fabrication
(Previously HVA 141 Sheet Metal Fabrication)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces the basics of shop-based sheet metal tools and hand tools and how they are used to create fittings for residential ducting systems. Safe operation of tools will be stressed. The layout and fabrication of a furnace plenum, a transition, and square and radius elbows will be covered. Other fittings may be covered as time permits.

HVA 1042 Residential Air Conditioning
(Previously HVA 142 Residential Air Conditioning)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Details the principles of operation, servicing, and installation of air conditioning systems as they apply to humidifying, cooling, and dehumidifying a residential structure. Basic load calculations will be covered.

HVA 1043 Residential HVAC Trouble Shooting
(Previously HVA 143 Residential HVAC Trouble Shooting)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Troubleshooting practical problems and techniques will be covered. Use of computer simulation as well as actual equipment will be utilized.

HVA 1046 Residential Load Calculation & Duct Design
(Previously HVA 146 Residential Load Calculation & Duct Design)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Introduces the importance of equipment sizing by teaching how to properly perform heating and cooling load calculations on residential houses. After determining proper equipment sizing, then demonstrate how to design the ductwork system sizing for proper airflow throughout the house.

HVA 2001 Heating for Commercial
(Previously HVA 201 Heating for Commercial)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Sophomore standing or faculty consent
Covers hydronic and steam heating systems, including steam, hot water, and forced air-heating systems for commercial buildings.

HVA 2004 Direct Digital Controls
(Previously HVA 204 Direct Digital Controls)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Sophomore standing or faculty consent
Introduces the student to the field of direct digital controls.

HVA 2006 Mechanical Codes
(Previously HVA 206 Mechanical Code)
4 Credit Hours • 60 Contact Hours (Lecture)
Reviews in detail the Uniform Mechanical Code. The course is intended to give those entering the HVAC/R trade, as well as trades people taking certification examinations, a sound knowledge of this code.

HVA 2022 HVAC & R Systems Troubleshooting
(Previously HVA 222 HVAC & R Systems Troubleshooting)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Note: Sophomore standing or faculty consent
Studies troubleshooting industrial and commercial heating, ventilating, air conditioning, and refrigeration systems.

HVA 2033 Advanced Refrigeration
(Previously HVA 233 Advanced Refrigeration)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Sophomore standing or faculty consent
Builds on the skills acquired in refrigeration fundamentals. The student will have an opportunity to study and to work on rooftop units, ice machines, and commercial reach-in and walk-in coolers.

HVA 2041 Advanced Air Conditioning
(Previously HVA 241 Advanced Air Conditioning)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Sophomore standing or faculty consent
Studies commercial air conditioning systems to include centrifugal water chillers, air handlers, and building systems.

HVA 2045 Commercial Refrigeration & Air Conditioning
(Previously HVA 245 Commercial Refrigeration & Air Conditioning)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Builds on the skills acquired in refrigeration and air conditioning fundamentals. The student will study commercial air conditioning systems to include rooftop units, water chillers, cooling towers, air handlers and facilities equipment. The student will have an opportunity to study and work on commercial reach-in and walk-in coolers, ice machines, and study the workings of commercial supermarket systems. The student will study and demonstrate how to troubleshoot commercial heating, air conditioning and refrigeration systems.

HVA 2047 Hot Water Heating Systems
(Previously HVA 247 Hot Water Heating Systems)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers the theory of operation behind these systems, as well as installation, maintenance, and repair. The course also examines air elimination, circulator pump and pipe sizing. Boiler and heat convector sizing are also discussed.

HVA 2051 Building Automation I, Installer
(Previously HVA 251 Building Automation I, Installer)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Helps the student with the installation of building automation devices with regard to HVAC equipment.

HVA 2052 Building Automation II, Service
(Previously HVA 252 Building Automation II, Service)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers operating and modifying an installed building automation system. This is a highly interactive course where you will learn and exercise common applications of a building management system.

HVA 2053 Building Automation III, Advanced Operations
(Previously HVA 253 Building Automation III, Advanced Operations)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers complete set up and programming of a building automation system. The class includes extensive hands-on workshops.

HVA 2059 Commercial HVAC System Design
(Previously HVA 259 Commercial HVAC System Design)
4 Credit Hours • 60 Contact Hours (Lecture)
Introduces the basics of designing HVAC systems as it relates to commercial buildings. Studying the areas of basic scientific principles relating to HVAC system designs, indoor air quality and comfort, heating and cooling load calculations and HVAC duct system design. Provides a foundation of knowledge related to commercial HVAC systems including what the HVAC designer thinks as they make system, zoning, equipment, and automatic control choices.

HVA 2062 Residential Heat Pump Service
(Previously HVA 262 Residential Heat Pump Service)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Sophomore standing or faculty consent
Introduces the student to the fundamentals of heat pump systems. Reverse-cycle refrigeration, four-way valves, air source heat pumps, ground source heat pumps, water source heat pumps, refrigerant line identification, types of metering devices, and liquid-line accessories will be covered. Installation and troubleshooting will also be covered.

HVA 2080 Internship
(Previously HVA 280 Internship)
2 Credit Hours • 90 Contact Hours (Internship)
Gives the student an opportunity to apply their course studies in a specific area.

HVA 2089 Capstone
(Previously HVA 289 Capstone)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Demonstrate culmination of learning within a given program of study.

History Courses

History courses may be taken in any order

HIS 1110 The World: Antiquity–1500: HI1
(Previously HIS 111 The World: Antiquity–1500: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores trends within events, peoples, groups, ideas, and institutions in World History from antiquity to 1500. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity. This course focuses on common cultural trends.

HIS 1120 The World: 1500–Present: HI1
(Previously HIS 112 The World: 1500–Present: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores trends within events, peoples, groups, ideas, and institutions in World History since 1500 as well as on common cultural trends. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through the perspectives such as gender, class, religion, and ethnicity.

HIS 1210 United States History to Reconstruction: HI1
(Previously HIS 121 U.S. History to Reconstruction: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores trends within events, peoples--including Native American--groups, ideas, and institutions in North America and the United States to Reconstruction. This class focuses on developing,

practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such gender, class, religion, and ethnicity.

HIS 1220 United States History Since the Civil War: HI1
(Previously HIS 122 U.S. History Since the Civil War: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores trends within events, peoples, groups, ideas, and institutions since the American Civil War. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 1310 Western Civilization: Antiquity–1650: HI1
(Previously HIS 101 Western Civilization: Antiquity–1650: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores trends within events, peoples, groups, ideas, and institutions in Western Civilization from antiquity to 1650. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 1320 Western Civilization: 1650–Present: HI1
(Previously HIS 102 Western Civilization: 1650–Present: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores trends within events, peoples, groups, ideas, and institutions in Western civilization since 1650. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2000 History of Science & Technology: HI1
(Previously HIS 218 History of Science & Technology: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores the complex relationship between scientific and technological developments and western society and culture. It emphasizes the way social and cultural norms can impact scientific or technological progress, and vice-versa, especially in the period since the Scientific Revolution. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2005 Women in World History: HI1
(Previously HIS 205 Women in World History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines the roles, experiences, and contributions of women in world history and explores ways in which women's history modifies the traditional interpretations of historical events. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2015 20th Century World History: HI1
(Previously HIS 247 20th Century World History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Investigates the major political, social, and economic developments, international relationships, scientific

breakthroughs, and cultural trends that have shaped the various global regions, empires, and nation-states since the late nineteenth century. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2105 Women in U.S. History: HI1
(Previously HIS 215 Women in U.S. History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines women's changing roles in American history. It explores the nature of women's work and the participation of women in family, political, religious, and cultural activities and in social reform movements. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2110 African American History: HI1
(Previously HIS 250 African American History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores the experiences and contributions of African Americans from the colonial period to the present through the social and economic lives and roles of African Americans, their roles in politics and war, their achievements, and movements for self-help and civil rights. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2115 American Indian History: HI1
(Previously HIS 208 American Indian History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Analyzes historical and socio-cultural change for Native Americans from pre-colonial America to the present, emphasizing those processes and relations with non-Native Americans which have contributed to the current conditions. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2125 American Environmental History: HI1
(Previously HIS 207 American Environmental History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Discovers and analyzes the relationships between Americans and their natural environments throughout the history of the United States. This course examines the development of conservation movements and environmental policies in modern America. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through the perspective of gender, class, religion, and ethnicity.

HIS 2130 History of the American West: HI1
(Previously HIS 235 History of the American West: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Traces the history of the American West from Native American cultures to the present. It explores the frontier experiences of America's earliest, eastern settlers through the Trans-Mississippi West across the great exploratory and wagon trails including cities, ranching, reservation, resource management, and industry. This course focuses on developing, practicing, and strengthening skills

historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2135 Colorado History: HI1
(Previously HIS 225 Colorado History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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, mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists, and the modern state. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2140 Civil War Era in American History: HI1
(Previously HIS 203 Civil War Era in American History: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores the causes, course, and consequences of the American Civil War. Students will examine four broad themes: union and disunion; slavery, race, and emancipation; the experience of modern war for individuals and society; and the challenges of Reconstruction. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2145 U.S. History Since 1945: HI1
(Previously HIS 236 U.S. History Since 1945: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines the major political, economic, social, and cultural developments that have shaped modern America from 1945 to the present. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2200 History of Latin America: HI1
(Previously HIS 244 History of Latin America: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on the major political, economic, social, and cultural influences that have shaped Latin America from pre-European conquest to the present. Emphasizes the early history of Latin America but connects it to the present. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2300 The Middle Ages: HI1
(Previously HIS 255 The Middle Ages: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines 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 course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2310 The History of Christianity in the World: HI1
(Previously HIS 251 The History of Christianity in the World: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Surveys the history of Christianity and its impact on the world from its Jewish origins, into its European expansion, and ending with its modern global presence. This course analyzes foundational theology, the impact of significant events on faith, the influence of Christianity in art and culture, and the role of key people in their historical contexts. This course inspects Christianity's relationship with Judaism, Islam, Enlightenment, modernity, moral systems, and values.

HIS 2500 History of Islamic Civilization: HI1
(Previously HIS 249 History of Islamic Civilization: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Surveys the tenets of Islam and the political, social, and cultural history of the civilizations that embraced it from the 6th century to the modern day, including the diversity by looking at legal systems, scientific and artistic accomplishments, philosophical heterogeneity, and political developments. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2510 Modern Middle East: HI1
(Previously HIS 259 Modern Middle East: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses the political, economic, social, and cultural development of the Middle East from the late Ottoman Empire to the present. It explores the influences of Islam as well as Western ideas and involvement upon institutions of modern Middle Eastern society, and reflects the multiple perspectives of gender, class, and ethnic groups.

HIS 2610 History of Modern China: HI1
(Previously HIS 243 History of Modern China: HI1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores the political, ideological, economic, religious, social, and cultural developments of modern China from the Qing dynasty through the political and economic revolutions of the 20th century. This course focuses on developing, practicing, and strengthening skills historians use while constructing knowledge and studying a diverse set of narratives through perspectives such as gender, class, religion, and ethnicity.

HIS 2765 Writing About History: CO3
(Previously HIS 265 Writing About History: CO3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Develops skills in historical writing, the use of rhetorical devices in persuasive historical arguments, critical analysis, and research methods in the historical study. Engaging in diverse historical readings, writings, and conversations, students devise strategies to identify workable topics, locate sources in libraries, archives, and published materials, and adapt their writing style to communicate with a variety of audiences.

Hospitality Courses

HOS 1005 Introduction to Management in the Hospitality Industry
3 Credit Hours • 45 Contact Hours (Lecture)
Describes the history, development, and operation of the hospitality industry including careers in the industry, management practices, accounting procedures, destinations, and lodging.

HOS 1031 Planning for Special Events
(Previously HOS 131 Planning for Special Events)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1048 Introduction to Food & Beverage
(Previously HOS 148 Introduction to Food & Beverage)
3 Credit Hours • 45 Contact Hours (Lecture)
Challenges a food and beverage manager faces in developing a solid customer base is presented in this course. Topics include principles of food production and service management, including menu planning, purchasing, storage, beverage management, and food service layout and equipment. Students will prepare a plan for a food service facility.

HOS 2021 Basic Hotel & Restaurant Accounting
(Previously HOS 221 Basic Hotel & Restaurant Accounting)
3 Credit Hours • 45 Contact Hours (Lecture)
Helps to develop a basic understanding of hotel and restaurant accounting procedures, with a focus on the computerized accounting used in today's hospitality accounting situations. You'll learn about taxation of business income, the role of governmental agencies, and how to read and analyze financial statements.

HOS 2026 Supervision in the Hospitality Industry
(Previously HOS 226 Supervision in the Hospitality Industry)
3 Credit Hours • 45 Contact Hours (Lecture)
Teaches the skills that can help develop effective supervision and management skills that are essential to success in the industry. Topics include how to recruit, select, and train; increase productivity; control labor costs; communicate effectively; manage conflict and change; and use time management techniques. Resources on creating a professional development plan for your hospitality career can help set the direction for future educational and professional endeavors.

HOS 2031 Resort Facilities Management & Design
(Previously HOS 231 Resort Facilities Management & Design)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers all major facility systems, including food service equipment and design. Non-engineers can learn how to understand and speak the language of vendors, suppliers, and maintenance/engineering staff. You'll also learn techniques to reduce expenses and increase efficiency, and also learn the latest technology can streamline operations procedures. A discussion of how hotel operations are affected by the United Nations environmental guidelines will provide information on balancing the needs of guests with concern for the environment.

HOS 2051 Hotel Operations
(Previously HOS 251 Hotel Operations)
3 Credit Hours • 45 Contact Hours (Lecture)
Studies hotel operations covering such aspects as the hotel organization chart, job analysis and design, managing human resources, production and serving controls, calculating food and beverage costs, and telecommunication systems. Case problems provide the students the opportunity to develop control systems

for food and lodging organizations and understand the hierarchy of career advancement in a hotel environment.

HOS 2080 Internship
(Previously HOS 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Exposes the learner to the practical application of course studies in the hospitality industry. The course consists of practical experience in a hotel, restaurant, convention center, resort, tourism operation, or other professional opportunity in the hospitality industry.

Humanities Courses

Humanities courses may be taken in any order

HUM 1003 Introduction to Film Art: AH2
(Previously HUM 103 Introduction to Film Art: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces film terminology and narrative techniques to explore how film conveys meaning and to study the relationships among film form, content, and audience reception. This course emphasizes active viewing, discussion, and critical analysis of films from different cultures and eras.

HUM 1015 World Mythology: AH2
(Previously HUM 115 World Mythology: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces an interdisciplinary approach to world mythology. This course illustrates and connects common themes in mythology to world religion, philosophy, art, literature, music, and contemporary culture using various interpretive methods.

HUM 1021 Early Civilization: AH2
(Previously HUM 121 Early Civilization: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the interdisciplinary study of ideas that have defined cultures through a survey of the visual, performing, and literary arts, emphasizing connections among diverse cultures, including European and non-European, from the prehistoric to the early medieval era.

HUM 1022 Medieval - Modern: AH2
(Previously HUM 122 Medieval - Modern: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

HUM 1023 Modern World: AH2
(Previously HUM 123 Modern World: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
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 European Enlightenment to the postmodern era.

HUM 2011 Cultural Diversity in the Humanities
(Previously HUM 211 Cultural Diversity in the Humanities)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to the various aspects of social and cultural diversity. Promotes development of critical thought and growth of multicultural, multisocial and multilingual understanding.

Industrial Mechatronic Maintenance Courses

IMM 1004 Service & Repair Principles
(Previously IMM 104 Service & Repair Principles)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides information about basic mechanical principles such as force and energy. Understanding properties of materials used in industrial systems in order to perform work fastening components or sealing and coating equipment. Students will learn the use of a variety of tools to complete the tasks, and an understanding of mechanical principles, material properties, and tool operation is critical.

IMM 1006 Boiler Systems
(Previously IMM 106 Boiler Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides information on topics of boiler systems such as the safe efficient operations, energy efficiency, and environmental regulations Students will study additional topics such as heat exchanger principles, boiler emissions requirements, blowdown temperature control, heat-recovery related equipment, and sequential operating procedures for common boiler operator duties.

IMM 1008 Efficiency and Sustainability
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces fundamentals of efficient and sustainable design of industrial facilities. The content includes green building practices and implementation along with green building concepts, site and industrial facilities planning and development, materials, strategies, cost benefit analysis, and practical applications in the industrial facilities business environment.

IMM 1009 Soldering & Brazing
(Previously IMM 109 Soldering and Brazing)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on principles and technologies of joining different types of alloys by braze welding and soldering. Course covers safety and health, procedures and design, pre-cleaning and surface preparation, filler metals, fluxes and atmospheres, torch brazing, pipe and tube, copper, and cast iron.

IMM 1011 National Institute for Metalworking Skills (NIMS) Maintenance Operations
(Previously IMM 111 National Institute for Metalworking Skills (NIMS) Maintenance Operations)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces students to career opportunities in the maintenance operations field. This course also addresses several basic topics such as safety, tools, fasteners, print reading, troubleshooting, and rigging. This course will prepare student to earn the NIMS Industrial Technology Maintenance Level 1 Maintenance Operations credential.

IMM 1012 National Institute for Metalworking Skills (NIMS) Mechanical Systems
(Previously IMM 112 National Institute for Metalworking Skills (NIMS) Mechanical Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers basic principles of mechanical transmission and the working principles of simple machines. Topics include common types of bearings, seals, lubricants, industrial shafting, belt and chain drives, gear power transmission, and conveyor systems. Covers troubleshooting techniques used in evaluating mechanical systems. Content will help prepare student to earn the National Institute for Metalworking Skills (NIMS) Industrial Technology Maintenance Level 1 Basic Mechanical Systems credential.

IMM 1013 National Institute for Metalworking Skills (NIMS) Hydraulic Systems
(Previously IMM 113 National Institute for Metalworking Skills (NIMS) Hydraulic Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces essential principles and components of hydraulic systems, covering fluid power system diagrams and the important relationships between fluid flow and pressure in systems. Overview of the NIMS areas of pneumatic systems of a manufacturing facility, some maintenance and troubleshooting tips to properly work on these systems. This content is preparation to earn the NIMS Industrial Technology Maintenance Level 1 Basic Hydraulic Systems credential.

IMM 1014 National Institute for Metalworking Skills (NIMS) Pneumatic Systems
(Previously IMM 114 National Institute for Metalworking Skills (NIMS) Pneumatic Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces essential principles, of pneumatic systems, system diagrams and the relationships between fluid flow and pressure in systems. This course will include maintenance and troubleshooting tips necessary for working on these systems. This course content will help prepare the student to earn the National Institute for Metalworking Skills (NIMS) Industrial Technology Maintenance Level 1 Basic Pneumatic Systems credential.

IMM 1015 National Institute for Metalworking Skills (NIMS) Electrical Systems
(Previously IMM 115 National Institute for Metalworking Skills (NIMS) Electrical Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces industrial maintenance technology used in electrical systems. Focuses on how electrical power is converted into energy. Explains electrical applications and the theory on which they operate. The content in this section will help prepare student to earn the NIMS Industrial Technology Maintenance Level 1 Electrical Systems credential.

IMM 1016 National Institute for Metalworking Skills (NIMS) Electronic Control Systems
(Previously IMM 116 National Institute for Metalworking Skills (NIMS) Electronic Control Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the use of DC power supplies, signal conditioning equipment, sensors, transistors, and variable frequency drives (VFDs). Also explains installing, programming, and troubleshooting programmable logic controllers (PLCs). Topics covered are human-machine interfaces (HMIs) and the use of devices and software which allow technicians to interact with industrial control systems. This content will help prepare students to earn the National Institute for Metalworking Skills (NIMS) Industrial Technology Maintenance Level 1 Electronic Control Systems (ECS) credential.

IMM 1017 National Institute for Metalworking Skills (NIMS) Process Control Systems
(Previously IMM 117 National Institute for Metalworking Skills (NIMS) Process Control Systems)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces control systems, the operation of heating and cooling systems, and related maintenance and troubleshooting tasks. This course includes how to read and comprehend piping and instrumentation diagrams (P&IDs) and the standard symbols they contain. The content in this course will help prepare student to earn the National Institute for Metalworking Skills (NIMS) Industrial Technology Maintenance Level 1 Process Control Systems credentials.

IMM 1018 National Institute for Metalworking Skills (NIMS) Maintenance Piping
(Previously IMM 118 National Institute for Metalworking Skills (NIMS) Maintenance Piping)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the basics of piping systems and the tools and operations needed to maintain these systems. This course also provides basic knowledge of the engineering principles that apply to piping systems troubleshooting and repairing these systems. The content in this section will help prepare student to earn the National Institute for Metalworking Skills (NIM)S Industrial Technology Maintenance Level 1 Maintenance Piping credential.

IMM 1019 High Pressure Boilers
(Previously IMM 119 High Pressure Boilers)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides information on the safe efficient operations, energy efficiency, and environmental regulations of high-pressure boilers. Covers heat exchanger principles, boiler emissions requirements, blowdown temperature control, heat recovery related equipment, and sequential operating procedures for common boiler operator duties.

Integrative Health Professions Courses

IHP 1000 Exploring Complementary Health Modalities
(Previously IHP 100 Exploring Complementary Health Modalities)
1 Credit Hour ● 15 Contact Hours (Lecture)
Explores some of the more widely used alternative/complimentary healing methods. The course expands perspectives on health and provides a basis for conversing in a knowledgeable manner with clients and practitioners about alternative health options.

IHP 2050 Registered Yoga Teacher Training Level 200
(Previously IHP 250 Registered Yoga Teacher Training Level 200)
10 Credit Hours ● 225 Contact Hours (Lecture/Lab Combination)
Provides training in applicable anatomy, educational and physical requirements, and specific kinesthetic techniques necessary to become a professional Hatha Yoga (RYT200) instructor. This course describes the history, philosophy, and practice of Yoga and its multi-faceted impact on health. Special training is given to provide modifications for those with various health-related conditions or limitations. Content will focus on lesson plans preparation, protocol and skill development, and the ethical practices in becoming a registered yoga instructor.

IHP 2052 Mindfulness Practices for Health & Wellness
(Previously IHP 252 Mindfulness Practices for Health and Wellness)
2 Credit Hours • 30 Contact Hours (Lecture)
Examines the mental, emotional, spiritual, and physiological impact of mindfulness and meditation techniques on the brain, bodily systems and on overall stress reduction. This course explores the historical and cultural evolution of mindfulness techniques and investigates the overall health benefits of various breathing and meditation practices in promoting wellness. Content will promote experiential mindfulness exercises and information on diverse meditation tools for individual practice development and for teaching to others.

Interior Design Courses

IND 1017 Interior Textiles
(Previously IND 117 Interior Textiles)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Study and research of fabric types, fibers, weaves, finishes, construction and dying & printing methods for residential and commercial fabrics and carpets. Emphasis is on selection of

appropriate and code compliant products for environmental, durability and life safety concerns. Evaluation, selection, and specification of textile products to create aesthetic and functional designs appropriate for residential and commercial interiors.

IND 1100 Interior Design Fundamentals
(Previously IND 100 Interior Design Fundamentals)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
An introduction to design elements, principles and theory. Application techniques, emphasizing design relationships and composition, will be explored. Basic skills and techniques of both visual and oral presentations will be introduced.

IND 1102 History of Interior Design
(Previously IND 107 History of Interior Design)
3 Credit Hours • 45 Contact Hours (Lecture)
Offers a study of interiors and furnishings from the medieval period to the Revival styles of the mid-eighteenth century to the contemporary classics used in modern interiors today. Study of interior and exterior architectural elements, furniture, design motifs and ornamentation, fine arts and construction methods as it relates to the cultural, political, social, technological and economic conditions of the times.

IND 2078 Workshop
(Previously IND 278 Workshop)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: IND 2207
Note: Must have Department Chair permission to enroll
Provides students with an experiential learning opportunity.

IND 2080 Internship
(Previously IND 280 Internship)
2-4 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Prerequisite: IND 2300
Note: Must have Department Chair permission to enroll
Provides work experience in a business or industry.

IND 2088 Practicum
(Previously IND 288 Practicum)
1 Credit Hour • 30 Contact Hours (7.5 Lecture, 22.5 Practicum)
Prerequisite: IND 2207 or IND 2211
Note: Must have Department Chair permission to enroll
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

IND 2089 Capstone
(Previously IND 289 Capstone)
3-4 Credit Hours • Per Credit Hour, 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: IND 2088
Note: Must have Department Chair permission to enroll
Provides a demonstrated culmination of learning within a given program of study.

IND 2200 Drafting for Interiors
(Previously IND 111 Drafting for Interiors)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Introduces the basic drafting tools and techniques, graphic references and symbols, use of pencil and technical pen. Student learns to draft floor plans and interior elevations. Course also covers basic interior dimensioning and lettering as well as isometric drawing construction for interior components.

IND 2201 Graphic Communication
(Previously IND 112 Graphic Communication)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Teaches methods of communicating interior design plans, elements, and ideas in 3-D, through perspective drawing construction and quick sketch techniques, and practice rendering and illustration skills.

IND 2202 Perspective & Rendering Technique
(Previously IND 113 Perspective & Rendering Technique)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Teaches visual communication techniques, methods of communicating interior design plans, ideas and elements using sketching, 2D and 3D drawing and renderings. Emphasis is placed on 2D and 3D perspective drawings, illustrations, and renderings.

IND 2206 Interior Finishes
(Previously IND 118 Interior Finishes)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduction to interior finish materials used as a means of functional and aesthetic application by the interior designer. Develop skills to specify appropriate materials, estimate quantities, develop costs, and understand installation and removal associated with residential and commercial finishes, with a focus on sustainability.

IND 2207 Interior Design II – Space Planning & Human Factors
(Previously IND 120 Interior Design II – Space Planning & Human Factors)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105
Develop awareness of human dimensions, spatial organization, and the importance of physical and psychological characteristics of people. Ergonomics, building codes, ADA factors and universal design will be studied along with programming methods of gathering and organizing data for solving design problems and creating appropriate spatial relationships & furniture layouts for residential and commercial projects.

IND 2208 Residential Design
(Previously IND 151 Residential Design)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105, IND 2207; CAD 1110 or IND 2300
Development of a residential studio project, with an emphasis on universal design and sustainability, by implementing the design process. Requires research and application of residential design solutions through space planning, furniture & finish selections & specifications, estimating quantities & costs and understanding budget. Includes development of construction documentation and professional presentation techniques.

IND 2209 Commercial Design I
(Previously IND 152 Commercial Design I)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105, IND 2207
Introduces commercial design space planning and procedures for a variety of commercial project types. Emphasis will be placed on conceptual design, the programming and schematic design process, space planning and design documentation.

IND 2210 Accessorizing
(Previously IND 160 Accessorizing)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Teaches how to assist clients in selection of art, antiques, and accessories to aid in defining the character of the space. Styles and the eclectic mix of styles are covered, as well as placement and effective use of items.

IND 2211 Commercial Design II
(Previously IND 201 Commercial Design II)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2227 or IND 2209
Development of a commercial studio project, while applying knowledge of code & ADA requirements, building systems, finish

& furniture specifications and sustainability. Requires research and application of commercial design solutions through the design process. Includes development of construction documentation and professional presentation techniques.

IND 2300 Interior Construction
(Previously IND 211 Interior Construction)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105 or CAD 2220
Introduces the student to interior building systems and assemblies, construction documents and details, and codes applicable to interior architecture. Student will apply this knowledge to various graphic projects and is encouraged to produce projects using the computer and CAD software.

IND 2301 Interior Design III – Materials, Details, Codes & Specs
(Previously IND 220 Interior Design III – Materials, Details, Codes & Specs)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105
Study of local & national building and fire codes and their application in developing projects with concern for the health, safety, and welfare of the public. Understanding and illustrating interior building materials and specifications, interior details and section drawings for custom elements through construction documentation.

IND 2302 Lighting Design
(Previously IND 225 Lighting Design)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: CAD 1105 or CAD 2220
Teaches and applies basic knowledge of interior lighting technology and design. Content includes lamp classifications, color rendition, how lighting sources effect our perception of space, how to compute and control proper lighting levels, and how to communicate design information by means of a reflected ceiling plan and luminaire schedule. Students will be encouraged to produce projects using a variety of computer software applications.

IND 2500 Introduction to Kitchen & Bath Design
(Previously IND 161 Introduction to Kitchen & Bath Design)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 1105
Provides an introduction to Kitchen and Bath Design, applying NKBA guidelines. Students are introduced to an overview of Interior Design principles as they apply to Kitchen and Bath design. One portfolio project is produced using hand-drafting skills. Students are encouraged to produce the project using skills attained in this course.

IND 2502 Advanced Kitchen & Bath Design
(Previously IND 261 Advanced Kitchen & Bath Design)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Continues Kitchen and Bath Design instruction while participating in the NKBA Student Design Competition for 1 bathroom and 1 kitchen remodel. Students will use NKBA Graphic Standards and Planning Guidelines to facilitate 2 sets of drawings, 2 materials boards, and 1 estimate and contract for the projects.

IND 2701 Professional Practice for Interior Designers
(Previously IND 205 Professional Practice for Interior Designers)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces processes involved in creating and running a professional interior design business including legal, ethical, practical, and professional requirements. Emphasis on business structures and practices, professional documentation and contracts, marketing techniques, job cost estimating, setting up industry accounts and project management methods. Students become familiar with business practices in both commercial and residential design firms and develop business plans and resumes.

IND 2702 IND Portfolio Presentations
(Previously IND 213 IND Portfolio Presentations)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: IND 2078 or IND 2208, IND 2211
Prepare for the industry by refining presentation skills and completing portfolio for employment. Students learn to manipulate software renderings, hand-drafted renderings, model building, interior finish presentation boards to develop a digital and hard-copy portfolio for selling design through presentation. The students will learn various techniques for time management and time-saving skills for graphic communication.

IND 2703 Sustainable Design
(Previously IND 231 Sustainable Design)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: IND 2211 or concurrent enrollment, or IND 2704 or concurrent enrollment
Creates an awareness and understanding of ecological issues while emphasizing the use of environmentally friendly materials and resources that do not compromise the effectiveness of the design. This course also investigates the practice of design to reduce the effects on the environment using renewable materials in the design and building for both residential and commercial property. Its emphases are to learn to conserve resources and to reduce the negative impact on the environment.

IND 2704 Interior Design IV
(Previously IND 265 Interior Design IV)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: IND 2078 or IND 2300
Exposes students to various types of software used by major companies in the practice of interior design (course is divided into three sections to allow for this exposure). A project will be completed for each of the different software programs.

Interpreter Prep Program Courses

IPP 1021 Aspects of Interpreting I
(Previously IPP 121 Aspects of Interpreting I)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 1123 or concurrent enrollment
Introduces the foundations of interpreting, explaining the historical context and the professional requirements for, being an interpreter. This course describes the professional considerations of communication variables, the Code of Professional Conduct, certifications, specialized work of interpreters, situational assessment concerns, and interpreting processing theories.

IPP 1022 Aspects of Interpreting II
(Previously IPP 122 Aspects of Interpreting II)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 2221 or concurrent enrollment
Provides a more in-depth study of the field of interpreting, expanding on the basics introduced in IPP 1021. Lecture/discussion sessions will address ethical decision-making and cultural issues, as well as the various settings in which interpreters work. Students will have opportunities to observe various professional interpreters throughout the semester.

IPP 1025 Oral Transliterating
(Previously IPP 125 Oral Transliterating)
2 Credit Hours • 30 Contact Hours (Lecture)
Provides the student with the opportunity to develop basic oral communication facilitation skills. The course allows the student the advantage of learning the different techniques in rendering effective oral communication facilitation between consumers.

IPP 1031 Text Analysis
(Previously IPP 131 Text Analysis)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 1123 or concurrent enrollment
Focuses on learning and utilization of a sequenced method of preparing for interpreting assignments and analyzing English spoken text. Students will also increase their English and ASL vocabulary and learn to understand cultural implications in those languages.

IPP 1032 Interpretation Analysis
(Previously IPP 132 Interpretation Analysis)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 2221 or concurrent enrollment
Follows IPP 1031 and is a continuation of the work begun in that course. The focus in this course is for students to interpret fully analyzed English texts and to analyze their own interpretations. Students will learn to see what they do well and what needs improvement as well as to develop exercises to improve their work. Students will continue the vocabulary work begun in IPP 1031, further increasing English/Sign vocabulary and idioms.

IPP 1045 Deaf People in Society
(Previously IPP 145 Deaf People in Society)
2 Credit Hours • 30 Contact Hours (Lecture)
Note: Completion of ASL 1123 or concurrent enrollment
Expands the student's knowledge of the impact of deafness on the development of language and cognition and the socialization of Deaf individuals in a Hearing World.

IPP 1047 Survey of Deaf Culture
(Previously IPP 147 Survey of Deaf Culture)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 2221 or concurrent enrollment
Surveys the factors that contribute to defining Deaf persons as members of a cultural minority. This course will look at the impact of language on the culture as well as the role of norms, values, traditions, and minority groups within Deaf culture. Attention will also be given to identity and membership in Deaf culture.

IPP 2005 Educational Interpreting
(Previously IPP 205 Educational Interpreting)
4 Credit Hours • 60 Contact Hours (Lecture)
Helps students gain insight into the roles of the interpreter/tutor in the mainstream environment, and to recognize the implications of child development and classroom interaction patterns on interpreting. Students also discuss tutoring strategies.

IPP 2007 Specialized & Technical Communication
(Previously IPP 207 Specialized & Technical Communication)
2 Credit Hours • 30 Contact Hours (Lecture)
Note: Completion of ASL 2222 or concurrent enrollment
Expands their repertoire of specialized and technical sign terminology and apply them in appropriate contexts.

IPP 2025 English to ASL Interpreting
(Previously IPP 225 English to ASL Interpreting)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 2222 or concurrent enrollment; must be taken with IPP 2027 and IPP 2029
Provides the student an opportunity to develop consecutive and simultaneous interpreting skills, working from spoken English to American Sign Language.

IPP 2027 ASL to English Interpreting
(Previously IPP 227 ASL to English Interpreting)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 2222 or concurrent enrollment, must be taken with IPP 2025 and IPP 2029

Provides the student an opportunity to develop consecutive and simultaneous interpreting skills, working from American Sign Language to spoken English.

IPP 2029 Transliterating
(Previously IPP 229 Transliterating)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Completion of ASL 2222 or concurrent enrollment; must be taken with IPP 2025 and IPP 2027
Provides the student with knowledge of transliterating techniques and ability to develop skills in transliterating spoken English into signed English. The student is introduced to the concept of transliterating and the differences in transliterating and interpreting.

IPP 2035 Advanced Interpreting
(Previously IPP 235 Advanced Interpreting)
4 Credit Hours • 60 Contact Hours (Lecture)
Note: Should be taken with IPP 2079 and IPP 2081 in the final semester
Provides the student an opportunity to refine skills in ASL/English interpretation and transliteration.

IPP 2079 Interpreter Seminar
(Previously IPP 279 Interpreter Seminar)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: IPP 2035, IPP 2081 must be taken concurrently with IPP 2079. Must have GPA of B or higher. Grade of B or higher in ASL 2222, IPP 2025, IPP 2027, IPP 2029
Grading: P/F only
Provides the student with an open forum to discuss situations arising from interpreter assignments during internship and an opportunity to prepare for entering the interpreting field.

IPP 2081 Internship
(Previously IPP 281 Internship)
5 Credit Hours • 225 Contact Hours (Internship)
Note: IPP 2035, IPP 2079 must be taken concurrently with IPP 2081. Must have GPA of B or higher; Grade of B or higher in ASL 2222, IPP 2025, IPP 2027, IPP 2029
Grading: P/F only
Provides field experience interpreting in a supervised educational, community, service agency, or other setting.

Italian Courses

ITA 1001 Conversational Italian I
(Previously ITA 101 Conversational Italian I)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides the first course in a sequence for beginning students who wish to understand and speak Italian. The material includes basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

ITA 1011 Italian Language I
(Previously ITA 111 Italian Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
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.

ITA 1012 Italian Language II
(Previously ITA 112 Italian Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
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.

ITA 2011 Italian Language III: AH4
(Previously ITA 211 Italian Language III: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues Italian Language II in the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing, and cultural competency in the Italian language. This course is conducted predominantly in Italian.

ITA 2012 Italian Language IV: AH4
(Previously ITA 212 Italian Language IV: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues Italian Language III in the development of increased functional proficiency at the intermediate mid-level in speaking, aural comprehension, reading, writing, and cultural competency in the Italian language. This course is conducted predominantly in Italian.

Japanese Courses

JPN 1001 Conversational Japanese I
(Previously JPN 101 Conversational Japanese I)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces beginning students to conversational Japanese and focuses on understanding and speaking Japanese. Covers basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

JPN 1011 Japanese Language I
(Previously JPN 111 Japanese Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the Japanese language.

JPN 1012 Japanese Language II
(Previously JPN 112 Japanese Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite JPN 1011
Continues Japanese Language I in the development of functional proficiency in listening, speaking, reading, and writing the Japanese language.

JPN 2011 Japanese Language III: AH4
(Previously JPN 211 Japanese Language III: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite JPN 1012
Continues the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing, and cultural competency in the Japanese language. This course is conducted predominantly in Japanese.

JPN 2012 Japanese Language IV: AH4
(Previously JPN 212 Japanese Language IV: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite JPN 2011
Continues the development of increased functional proficiency at intermediate mid-level in speaking, aural comprehension, reading, writing, and cultural competency in the Japanese language. This course is conducted predominantly in Japanese.

Journalism Courses

JOU 1002 Introduction to Editing for Media
(Previously JOU 102 Introduction to Editing for Media)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the process of editing articles for publication in newspapers, newsletters, magazines, and digital media, emphasizing Associated Press (AP) style. This course covers many of the basics of journalism: reading, editing, grammar, mechanics, and design.

JOU 1005 Introduction to Mass Media: SS3
(Previously JOU 105 Introduction to Mass Media: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Places the mass media in an historical and cultural perspective, considering the validity, integrity, and influence of the media in a democracy.

JOU 1006 Media News & Reporting
(Previously JOU 106 Media News & Reporting)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Introduces newswriting, reporting, and interviewing with an emphasis on clarity, accuracy, timeliness, and fairness.

JOU 1021 Photojournalism
(Previously JOU 121 Photojournalism)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Develops photojournalistic skills in capturing moments of real life from a unique personal viewpoint. Covers a broad overview of new media story-telling techniques. Students will focus on the way they observe the world around them and on the content and quality of their photographs.

JOU 2006 Intermediate Newswriting & Editing
(Previously JOU 206 Intermediate Newswriting & Editing)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
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 2015 Publications Production & Design
(Previously JOU 215 Publications Production & Design)
3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)
Provides for students' participation in the planning, writing, design, and production processes of a non-newspaper publication.

JOU 2021 Newspaper Design I
(Previously JOU 221 Newspaper Design I)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Provides students with experience in newswriting, editing, design, layout, and advertising for newspaper production. Students may be required to work on the college newspaper or other news-oriented publications.

JOU 2025 New Media
(Previously JOU 225 New Media)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Explores techniques and approaches in the latest delivery methods for new media journalism, ethics, technological advances, and media literacy.

JOU 2031 Introduction to Public Relations
(Previously JOU 231 Introduction to Public Relations)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on public relations and its role for the individuals, non-profit organizations, businesses, and governments. This course covers research methodologies, principles, and practices necessary to become a public relations practitioner.

JOU 2041 Feature & Magazine Writing
(Previously JOU 241 Feature & Magazine Writing)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on trade, consumer, and technical publications, manuscript development with emphasis on nonfiction, submission

techniques, and trends affecting the marketing of manuscripts both in print and digital media.

JOU 2080 Internship
(Previously JOU 280 Internship)
0.25 - 6 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
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.

Law Enforcement Courses

LEA courses must have permission of Academy Director to register.

LEA 1001 Basic Police Academy I
(Previously LEA 101 Basic Police Academy I)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Note: Taken concurrently with LEA 1002, LEA 1003, LEA 1004, LEA 1005, LEA 1006, LEA 1007, LEA 1008, PED 1002, PED 1003
Conforms to POST (Peace Officer Standards and Training) standards and Colorado 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 both a lecture and laboratory mode of learning.

LEA 1002 Basic Police Academy II
(Previously LEA 102 Basic Police Academy II)
12 Credit Hours • 270 Contact Hours (Lecture/Lab Combination)
Note: Taken concurrently with LEA 1001, LEA 1003, LEA 1004, LEA 1005, LEA 1006, LEA 1007, LEA 1008, PED 1010
Conforms to POST (Peace Officer Standards and Training) 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 1003 Basic Law Enforcement Academy III
(Previously LEA 103 Basic Law Enforcement Academy III)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Taken concurrently with LEA 1001, LEA 1002, LEA 1004, LEA 1005, LEA 1006, LEA 1007, LEA 1008, PED 1010
Enhances the standards established by the P.O.S.T. 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 P.O.S.T. curriculum to create a unique learning experience.

LEA 1004 Basic Law Enforcement Academy IV
(Previously LEA 104 Basic Law Enforcement Academy IV)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Note: Taken concurrently with LEA 1001, LEA 1002, LEA 1003, LEA 1005, LEA 1006, LEA 1007, LEA 1008, PED 1010
Enhances the standards established by the P.O.S.T. 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 P.O.S.T. curriculum to create a unique learning experience.

LEA 1005 Basic Law
(Previously LEA 105 Basic Law)
8 Credit Hours • 120 Contact Hours (Lecture)
Note: Taken concurrently with LEA 1001, LEA 1002, LEA 1003, LEA 1004, LEA 1006, LEA 1007, LEA 1008, PED 1010
Conforms to POST (Peace Officer Standards and Training) 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 1006 Arrest Control Techniques
(Previously LEA 106 Arrest Control Techniques)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Taken concurrently with LEA 1001, LEA 1002, LEA 1003, LEA 1004, LEA 1005, LEA 1007, LEA 1008, PED 1010
Grading: P/F only
Conforms to POST (Peace Officer Standards and Training) standards and Colorado state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace office. Exploration of the skills, knowledge, and abilities necessary to effectively maintain control of a suspect when making an arrest. Explains the continuum of force and de-escalation of force.

LEA 1007 Law Enforcement Driving
(Previously LEA 107 Law Enforcement Driving)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Taken concurrently with LEA 1001, LEA 1002, LEA 1003, LEA 1004, LEA 1005, LEA 1006, LEA 1008, PED 1010
Grading: P/F only
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 1008 Firearms
(Previously LEA 108 Firearms)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Taken concurrently with LEA 1001, LEA 1002, LEA 1003, LEA 1004, LEA 1005, LEA 1006, LEA 1007, PED 1010
Grading: P/F only
Conforms to POST (Peace Officer Standards and Training) standards and Colorado state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. 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 be able to explain the firearms role within the continuum of force.

LEA 1018 Police Report Writing
(Previously LEA 118 Police Report Writing)
3 Credit Hours • 45 Contact Hours (Lecture)
Identifies the areas of concern in regard 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.

Literature Courses

LIT 1015 Introduction to Literature I: AH2
(Previously LIT 115 Introduction to Literature I: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces fiction, poetry, and drama. This course emphasizes active and responsive reading.

LIT 1021 Survey of World Mythology Literature
(Previously LIT 121 Survey of World Mythology Literature)
3 Credit Hours • 45 Contact Hours (Lecture)
Teaches students how to define mythology and how to read, analyze, and recognize mythic patterns and archetypes in diverse world literatures, both ancient and modern. The course will focus

on identifying the elements of myth and analyzing how these elements appear in, and are altered by, cultural stories and authorial literature from multiple eras.

LIT 2001 World Literature to 1600: AH2
(Previously LIT 201 World Literature to 1600: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines significant writings in world literature from the ancients to the seventeenth century. It emphasizes active reading and understanding of the works and their cultural backgrounds.

LIT 2002 World Literature after 1600: AH2
(Previously LIT 202 World Literature after 1600: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines significant writings in world literature from the seventeenth century to the present. It emphasizes active reading and understanding of the works and their cultural backgrounds.

LIT 2005 Race, Ethnicity, and Culture in U.S. Literature: AH2
(Previously LIT 205 Race, Ethnicity, Culture: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the cultural, historical, and social contexts impacting multiple ethnic American identities through critical reading and analysis. This course focuses on significant works by authors who identify as African American, Native American, Latino/a, Asian American, and other ethnicities.

LIT 2011 American Literature to Civil War: AH2
(Previously LIT 211 American Literature to Civil War: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines American literary works from pre-European arrival on the continent up to the Civil War, including works from diverse people that contributed to American literature. This course also explores historical and social contexts within various genres.

LIT 2012 American Literature after the Civil War: AH2
(Previously LIT 212 American Literature after the Civil War: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines American literary works from 1865 to the present, distinguishing among literary themes, genres, and schools of thought that illustrate historical and social contexts across a multicultural spectrum.

LIT 2021 British Literature to 1770: AH2
(Previously LIT 221 British Literature to 1770: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines major works of British literature from the Anglo-Saxon period through the 17th century. Explores the historical, political, and social contexts of the works as well as the major themes which reflect and/or critique the social assumptions and values of the times. Besides fostering an understanding of works essential to western culture, the course will examine how these works are still influential and relevant to contemporary thought and culture.

LIT 2022 British Literature since 1770: AH2
(Previously LIT 222 British Literature since 1770: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines major works of British literature from the 18th century to the present. Explores the historical, political, and social contexts of the works and the major themes authors used to reflect and critique the social assumptions of their times. Besides fostering an understanding of works essential to western culture, the course examines how these works are still influential and relevant to contemporary thought and culture.

LIT 2025 Introduction to Shakespeare: AH2
(Previously LIT 225 Introduction to Shakespeare: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores works by William Shakespeare, focusing on a careful reading of these works as well as an exploration of pertinent contextual and historical information.

LIT 2035 Science Fiction
(Previously LIT 235 Science Fiction)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the techniques and issues of science fiction through a close reading of a variety of writers in the genre.

LIT 2046 Literature of Women: AH2
(Previously LIT 246 Literature of Women: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the techniques and themes in literature by and about women by examining women's issues from various genres.

LIT 2048 Native American Literature
(Previously LIT 248 Native American Literature)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines oral and written literature created by Native American peoples. Emphasizes narrative and ceremonial literature from the oral tradition. Examines oratory, autobiography, essays, poetry, short stories, and novels as oral and written forms.

LIT 2055 Children's Literature: AH2
(Previously LIT 255 Children's Literature: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

LIT 2057 Literature & Film
(Previously LIT 257 Literature & Film)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the relationship between literature and motion pictures, emphasizing the technique and interpretive function of filmmakers.

LIT 2058 Latinx Literature: AH2
(Previously LIT 258 Latinx Literature)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the cultural, historical, and social contexts impacting Latinx identities through critical reading and analysis. This course focuses on significant works, including poetry, drama, and/or fiction, by Latinx authors.

LIT 2068 Celtic Literature: AH2
(Previously LIT 268 Celtic Literature: AH2)
3 Credit Hours • 45 Contact Hours (Lecture)
Exposes the student to Irish literature. The course examines significant writings in Irish literature from the ancients through to the twenty-first century. The course emphasizes the careful reading and understanding of works of poetry, fiction, and drama, as well as their cultural backgrounds.

LIT 2069 Popular Literature & Culture
(Previously LIT 269 Popular Literature & Culture)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores special interests in literature, such as Detective Fiction and Science Fiction.

Machining Courses

MAC 1000 Machine Shop Safety
(Previously MAC 100 Machine Shop Safety)
1 Credit Hour • 15 Contact Hours (Lecture)
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 1001 Introduction to Machine Shop
(Previously MAC 101 Introduction to Machine Shop)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers safety procedures, use of bench tools, layout tools, power saws, drill presses, precision measurement tools, and various hand tools related to the machine shop. Also included are sharpening drill bits and general-purpose turning tools for the lathe as well as determining speeds and feeds for both the lathe and the milling machine.

MAC 1002 Print Reading for Machinists
(Previously MAC 102 Print Reading for Machinists)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1010 Introduction to Engine Lathe
(Previously MAC 110 Introduction to Engine Lathe)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces basic lathe applications which will consist of identifying lathe components and controls, understanding turning safety, calculating speeds and feeds, using various tools and tool holders, identifying basic tool geometry, and the use of common lathe spindle tooling. Students will perform basic lathe operations, which will consist of facing, center-drilling, chuck turning, turning between centers, boring, grooving, tapers, knurling, and single point threading. Students will be required to produce specified parts to a tolerance of +/- .004 in. and perform competencies set by manufacturing standards.

MAC 1011 Intermediate Engine Lathe
(Previously MAC 111 Intermediate Engine Lathe)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Teaches students to prepare single point external and internal unified screw threads to a Class 3 fit, generate angles with the compound rest within one degree, ream holes concentric within .001 inches, determine cutting speeds, and perform facing and turning operations.

MAC 1012 Advanced Engine Lathe
(Previously MAC 112 Advanced Engine Lathe)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prepares students to form radius, single-point isometric threads, turn spherical radius, use a radius gauge, and work within .0005 inches tolerance externally.

MAC 1020 Introduction to Milling Machine
(Previously MAC 120 Introduction to Milling Machine)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Teaches students to identify the major parts of the vertical mill; align a vise; use an indicator, edge finder, and boring head; determine speeds and feeds; perform simple indexing; mill flat and square surfaces and slots; drill, bore, and tap holes; and work within a plus or minus .002 inch tolerance.

MAC 1021 Intermediate Milling Machine
(Previously MAC 121 Intermediate Milling Machine)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prepares students to determine hole locations by coordinates and degrees, use a rotary table, use a jig bore to drill holes by the coordinate method, and work within plus or minus .001 inch tolerance.

MAC 1022 Advanced Milling Machine Operations
(Previously MAC 122 Advanced Milling Machine Operations)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prepares students to indicate the head of a vertical mill, bore holes, drill holes at an angle, and work with tolerances of .0008 inches location and diameter.

MAC 2005 Introduction to CNC Milling Operations
(Previously MAC 205 Introduction to CNC Milling Operations)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces basic creating and editing of CNC mill programs. Introduction to G&M codes, math, speeds and feeds, production processes including process controls, and documentation associated with manufacturing will be covered.

MAC 2006 CNC Milling Operations II
(Previously MAC 206 CNC Milling Operations II)
3 Credit Hours • 45 Contact Hours (Lecture)
Further develops skills in writing and editing advanced CNC mill programs. G&M codes, math, speeds and feeds, production processes including multi-part, process controls, and documentation associated with manufacturing will be covered.

MAC 2040 CAD/CAM 2D
(Previously MAC 240 CAD/CAM 2D)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides the student with the essential concepts and techniques that are required to successfully create part geometry, generate tool path, verify tool path models, and post process the NC codes. The student will be exposed to a 2-axis machining, 3-axis machining wire frame and surface modeling, lathe programming, and DNC systems. Programming projects and models will be demonstrated in the CNC manufacturing lab.

MAC 2041 CAD/CAM 2D Lab
(Previously MAC 241 CAD/CAM 2D Lab)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Requires students to produce a variety of lab exercises on robotic machinery in conjunction with MAC 2040. 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 re-machining operations. Coursework will primarily focus on 2D geometry projects.

MAC 2045 CAD/CAM 3D
(Previously MAC 245 CAD/CAM 3D)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers both the production and surfacing of three-dimensional geometry in a self-paced setting. Issues will be covered related to the production of wire frames, solids, surfaces, the joining of surfaces, joining of solids, managing construction planes, sweeping, rotating, and controlling parameter settings. A familiarity with Mastercam, CNC programming techniques, and CNC operations is recommended.

MAC 2046 CAD/CAM 3D Lab
(Previously MAC 246 CAD/CAM 3D Lab)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Requires students to produce a variety of three-dimensional lab exercises on robotic machinery in a self-paced format in

conjunction with MAC 2045. Coursework will focus primarily on advanced geometry to include developing an understanding of CNC codes related to work offsets, cutter compensations, and tool management within CADCAM programs on the milling machine.

MAC 2052 Practical Metallurgy
(Previously MAC 252 Practical Metallurgy)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Offers a study of metallurgical terms and definitions in an effort to understand both the behavior of metals and their service to industry. Characteristics during heating, cooling, shaping, forming, and the stresses related to their mechanical properties are covered. The theory behind the alloys, heat treatment processes, and the impact they have on strength, toughness, hardness, elasticity, ductility, malleability, wear resistance, and fatigue resistances is investigated.

MAC 2080 Machining Internship
(Previously MAC 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
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.

Management Courses

MAN 1016 Principles of Supervision
(Previously MAN 116 Principles of Supervision)
3 Credit Hours • 45 Contact Hours (Lecture)
Defines supervision, examines the functions of a supervisor, explains the necessary skills for successful supervision, relates supervision with human resources, and discusses supervisory challenges.

MAN 1017 Time Management
(Previously MAN 117 Time Management)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Provides a clear sense of purpose for the following: structured goals, overcome barriers, leverage practical strategies, tools, and techniques to develop and implement an effective time management framework.

MAN 1025 Team Building
(Previously MAN 125 Team Building)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces the concept of working as a team member. This course emphasizes the ability to negotiate, collaborate, build consensus, and make quality decisions.

MAN 1028 Human Relations in Organizations
(Previously MAN 128 Human Relations in Organizations)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2000 Human Resource Management I
(Previously MAN 200 Human Resource Management I)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2005 Event Planning:
(Previously MAN 205 Event Planning:)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the components of meeting planning, organization, personnel, finances, site selection, transportation, program design, promotion, arrangement of exhibits, and evaluation.

MAN 2010 Aligning Technology with Business Strategy
(Previously MAN 210 Aligning Technology with Business Strategy)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: BUS 1015 recommended, but not required
Presents background on how an Information Technology (IT) Department works at the enterprise level. Discussion includes IT topics including role and composition of the IT department in business, importance of IT security, IT federal regulations, and how business can successfully leverage technology.

MAN 2016 Small Business Management
(Previously MAN 216 Small Business Management)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the elements necessary for the successful formation of a new small business and 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 2026 Principles of Management
(Previously MAN 226 Principles of Management)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2040 Strategic Management
(Previously MAN 240 Strategic Management)
3 Credit Hours • 45 Contact Hours (Lecture)
Presents the development of business and the integration of skills learned in prior business study, including strategy formulation, implementation, and evaluation. Focus is on the coordination of marketing, production, finance, accounting, and ethics and social responsibility to achieve competitive advantage.

MAN 2046 Critical Issues in Marketing & Management
(Previously MAN 246 Critical Issues in Marketing & Management)
3 Credit Hours • 45 Contact Hours (Lecture)
Examine current issues, practices, challenges and trends in the marketing and management environments including truth in advertising, promotional codes of conduct and a diverse workforce.

Manufacturing Technology Courses

MTE 1130 Metrology
(Previously MTE 130 Metrology)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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.

MTE 2330 Strength of Materials

(Previously MTE 247 Strength of Materials)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: CAD 2456, EGT 2303, MAT 1140 or higher
Serves as an extension of Statics and includes the study of mechanical properties of materials and their limitations in engineering design by the study or stresses, strains, torsion forces, shear forces, and deflections placed upon these materials.

Marketing Courses

MAR 1011 Principles of Sales

(Previously MAR 111 Principles of Sales)
3 Credit Hours • 45 Contact Hours (Lecture)
Addresses ethical sales techniques, the role of selling, and the marketing process. Areas of emphasis include behavioral considerations in the buying and selling process and sales techniques.

MAR 1017 Principles of Retailing

(Previously MAR 117 Principles of Retailing)
3 Credit Hours • 45 Contact Hours (Lecture)
Presents the basic principles and techniques of retailing, multi-channel retailing, retail market strategy, planning merchandise assortments and buying systems, merchandising, operations, layout, store organization, site location, and customer service through a variety of retail operations.

MAR 1060 Customer Service

(Previously MAR 160 Customer Service)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2016 Principles of Marketing

(Previously MAR 216 Principles of Marketing)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2020 Principles of Advertising

(Previously MAR 220 Principles of Advertising)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the principles and practices of advertising and its relationship to business in the promotion of a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MAR 2040 International Marketing

(Previously MAR 240 International Marketing)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores international marketing for U.S. products, the increasing competitive international environment, and recent changes in the environment that have challenged U.S. business. This course focuses on the global marketplace and making marketing decisions in a global context.

MAR 2049 Strategic Marketing

(Previously MAR 249 Strategic Marketing)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the connections between a market-driven strategy, customer satisfaction, and profitable growth. This course explores development of marketing strategies within both small and large organizations, with emphases on strategy development, implementation, and evaluation.

Math Courses

MAT 0120 Math for Clinical Calculations Support

3 Credit Hours • 45 Contact Hours (Supplemental Academic Instruction)
Prerequisite: MAT 1120 or concurrent enrollment
Supports skill development necessary for success within Math for Clinical Calculations.

MAT 0140 Career Math Support

2 Credit Hours • 30 Contact Hours (Supplemental Academic Instruction)
Prerequisite: MAT 1140 or concurrent enrollment
Supports skill development necessary for success within Career Math.

MAT 0161 Financial Mathematics Support Lab

1 Credit Hour • 30 Contact Hours (Lab)
Prerequisite: MAT 1160 or concurrent enrollment
Supports skill development necessary for success within Financial Mathematics.

MAT 0200 Algebraic Literacy Lab

(Previously MAT 025 Algebraic Literacy Lab)
1 Credit Hour • 30 Contact Hours (Lab)
Prerequisite: MAT 0300 or concurrent enrollment
Note: MAT 0200 must be taken concurrently with MAT 0300
Supports skill development for students registered in MAT 0300. Topics covered in this course include those defined in MAT 0300 and/or any pre-requisite skills needed by the student. For students with Next Gen Accuplacer QAS score 250-264, this course is a required co-requisite with MAT 0300.

MAT 0240 Mathematics for Liberal Arts Support

2 Credit Hours • 30 Contact Hours (Supplemental Academic Instruction)
Prerequisite: MAT 1240 or concurrent enrollment
Supports skill development necessary for success within Math for Liberal Arts.

MAT 0250 Quantitative Literacy

(Previously MAT 050 Quantitative Literacy)
4 Credit Hours • 60 Contact Hours (Lecture)
Develops number sense and critical thinking strategies, introduces algebraic thinking, and connects mathematics to real world applications. Topics in this course include ratios, proportions, percent, measurement, linear relationships, properties of exponents, and math learning strategies. This course prepares students for math for liberal arts, statistics, integrated math, and college level career math courses.

MAT 0260 Introduction to Statistics Support

2 Credit Hours • 30 Contact Hours (Supplemental Academic Instruction)
Prerequisite: MAT 1260 or concurrent enrollment
Supports skill development necessary for success within Introduction to Statistics.

MAT 0300 Algebraic Literacy

(Previously MAT 055 Algebraic Literacy)
4 Credit Hours • 60 Contact Hours (Lecture)
Note: MAT 0300 must be taken concurrently with MAT 0200
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, systems of linear equations in two variables, related applications, and linear

inequalities. This course prepares students for MAT 1320 and MAT 1340.

MAT 1120 Math for Clinical Calculations
(Previously MAT 103 Math for Clinical Calculations)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 0250, MAT 0300 or appropriate placement scores
Covers the mathematical calculations needed for enteral and parenteral medication administration. It is designed for students in the health disciplines. Topics include measurements, conversion between various systems of measurements, and methods of solving problems related to drug dosage and medication administration.

MAT 1140 Career Math
(Previously MAT 107 Career Math)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 0250, MAT 0300 or appropriate placement scores
Covers material designed for career and technical students who need to study particular mathematical topics. Topics include measurement, algebra, geometry, statistics, and graphs. These are presented at an introductory level and the emphasis is on applications.

MAT 1160 Financial Mathematics
(Previously MAT 112 Financial Mathematics)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 0250, MAT 0300 or appropriate placement scores
Covers the fundamentals of financial mathematics. Topics include pricing, taxes, insurance, interest, annuities, amortization, and investments.

MAT 1220 Integrated Math I: MA1
(Previously MAT 155 Integrated Math I: MA1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 0250, MAT 0300 or appropriate placement scores
Engages students in the concepts underlying elementary level mathematics. The course emphasizes critical thinking and applications. Topics include the structure of number systems, an analysis of numerical operations, set properties, numerical and geometric patterns, and a variety of problem-solving skills.

MAT 1230 Integrated Math II: MA1
(Previously MAT 156 Integrated Math II: MA1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 0250, MAT 0300 or appropriate placement scores
Engages students in the concepts underlying elementary level mathematics. The course emphasizes critical thinking and applications. Topics include probability, statistics, measurement, Euclidean geometry, and algebraic methods.

MAT 1240 Mathematics for the Liberal Arts: MA1
(Previously MAT 120 Mathematics for the Liberal Arts: MA1)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 0250, MAT 0300 or appropriate placement scores
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.

MAT 1260 Introduction to Statistics: MA1
(Previously MAT 135 Introduction to Statistics: MA1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 0250, MAT 0300 or appropriate placement scores
Introduces descriptive and inferential statistics, with an emphasis on critical thinking and statistical literacy. Topics include methods of data collection, presentation and summarization, introduction to probability concepts and distributions, and statistical inference of one and two populations. This course uses real world data to illustrate applications of a practical nature.

MAT 1320 Finite Mathematics: MA1
(Previously MAT 123 Finite Mathematics: MA1)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 0300 or appropriate placement scores
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.

MAT 1340 College Algebra: MA1
(Previously MAT 121 College Algebra: MA1)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 0300 or appropriate placement scores
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.

MAT 1400 Survey of Calculus: MA1
(Previously MAT 125 Survey of Calculus: MA1)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 1340 or appropriate placement scores
Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science, and/or social science majors.

MAT 1420 College Trigonometry: MA1
(Previously MAT 122 College Trigonometry: MA1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 1340 or appropriate placement scores
Explores trigonometric functions, their graphs, inverse functions and identities. Topics include trigonometric equations, solutions of triangles, trigonometric form of complex numbers, and polar coordinates. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways.

MAT 1440 Pre-Calculus: MA1
(Previously MAT 166 Pre-Calculus: MA1)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: MAT 1340 or appropriate placement scores
Extends algebraic concepts and explores the subject of trigonometry. Topics include polynomial, rational, logarithmic, and exponential functions, trigonometric and inverse trigonometric functions and their graphs, trigonometric identities, and applications. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways.

MAT 2080 Internship
(Previously MAT 280 Internship)
1 Credit Hour • 45 Contact Hours (Internship)
Note: Must have faculty consent to enroll
Provides student 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.

MAT 2410 Calculus I: MA1
(Previously MAT 201 Calculus I: MA1)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: MAT 1420 or MAT 1440 or appropriate test scores
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.

MAT 2420 Calculus II: MA1
(Previously MAT 202 Calculus II: MA1)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: MAT 2410
Continues the study of single variable calculus which will include techniques of integration, analytic geometry, improper integrals, convergence of infinite numerical series and power series.

MAT 2430 Calculus III: MA1
(Previously MAT 203 Calculus III: MA1)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 2420
Focuses on the traditional subject matter of multivariable Calculus. Topics include vectors, vector-valued functions, partial derivatives, analytic geometry, multiple integrals, line integrals and applications.

MAT 2431 Calculus III with Engineering Applications: MA1
(Previously MAT 204 Calculus III with Engineering Applications: MA1)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: MAT 2420
Focuses on the traditional subject matter of multi-variable Calculus with an additional emphasis on word problems and problem solving. Topics include vectors, vector-valued functions, partial derivatives, analytic geometry, multiple integrals, line integrals, Stokes', Divergence Theorems and Green's Theorems, and applications.

MAT 2520 Discrete Mathematics: MA1
(Previously MAT 215 Discrete Mathematics: MA1)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 2410
Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

MAT 2540 Linear Algebra
(Previously MAT 255 Linear Algebra)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 2420
Introduces linear algebra and emphasizes techniques of problem solving and introductory proofs. This course includes linear systems, matrices, determinants, vector spaces, linear transformations, eigenvalues, and eigenvectors.

MAT 2560 Differential Equations: MA1
(Previously MAT 265 Differential Equations: MA1)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 2420
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 2562 Differential Equations with Linear Algebra
(Previously MAT 266 Differential Equations with Linear Algebra)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 2420
Concentrates on formal logic, algorithms, induction proofs, equivalence relations and graphs. This course is designed for mathematics and computer science students.

Medical Assistant Professional Courses

MAP 1010 Medical Office Administration
(Previously MAP 110 Medical Office Administration)
4 Credit Hours • 60 Contact Hours (Lecture)
Introduces the administrative duties specifically used in medical offices.

MAP 1020 Medical Office Financial Management
(Previously MAP 120 Medical Office Financial Management)
4 Credit Hours • 60 Contact Hours (Lecture)
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 1050 Pharmacology for Medical Assistants
(Previously MAP 150 Pharmacology for Medical Assistants)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1083 Medical Assistant Internship
(Previously MAP 183 Medical Assistant Internship)
5 Credit Hours • 225 Contact Hours (Internship)
Note: Program Coordinator Approval needed to register
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.

MAP 2038 Medical Assisting Laboratory
(Previously MAP 138 Medical Assisting Laboratory)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Introduces basic routine laboratory skills and techniques for collection, handling, and examination of laboratory specimens often encountered in the ambulatory care setting.

MAP 2040 Medical Assisting Clinical Skills
(Previously MAP 140 Medical Assisting Clinical Skills)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Identifies the reasoning principles of the medical office procedure and identifies and list the individual steps of the medical office procedural skill. Presents ideas and experiences to develop logical tools used for examining, assessing, and improving critical thought.

MAP 2069 Review for Medical Assistant National Examination
(Previously MAP 189 Review for Medical Assistant National Examination)
1 Credit Hour • 15 Contact Hours (Lecture)
Note: Should be in final semester of MOT degree program
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, therefore supporting quality care in the office or clinic.

MAP 2080 Internship
(Previously MAP 280 Internship)
4 Credit Hours ● 180 Contact Hours (Internship)
Note: Program Coordinator approval
Provides the opportunity to supplement coursework with practical work experience related to their educational program, working under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

Medical Office Technology Courses

MOT 1010 Medical Scribing
(Previously MOT 121 Medical Scribing)
4 Credit Hours • 60 Contact Hours (Lecture)
Provides basic knowledge, comprehension, and skills required to scribe medical dictation with accuracy, clarity, and timeliness, while applying the principles of professional and ethical conduct.

MOT 1015 Electronic Medical Office Records
(Previously MOT 122 Electronic Medical Office Records)
3 Credit Hours • 45 Contact Hours (Lecture)
Outlines the rules and principles of medical records in ambulatory care settings. Topics include hard copy and Electronic Medical/Health Records (EMR/EHR), data entry, records retention, Release of Information (ROI), Health Insurance & Portability Accountability Act (HIPAA), and other legal topics relating to patient records.

MOT 1020 Medical Filing
(Previously MOT 124 Medical Filing)
2 Credit Hours • 30 Contact Hours (Lecture)
Outlines the rules and principles of medical records in ambulatory care settings. Topics will include hard copy and electronic medical/health records (EMR/EHR), records retention, release of information, HIPAA, and other legal topics relating to patient records. Data entry into EMR exercises will be included.

MOT 1025 Basic Medical Sciences I
(Previously MOT 125 Basic Medical Sciences I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1026 Basic Medical Sciences II
(Previously MOT 133 Basic Medical Sciences II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the anatomy, physiology, pathophysiology, and drug therapy of the cardiovascular, respiratory, integumentary, and senses systems. The scope of material is limited for the medical office technology personnel.

MOT 1027 Basic Medical Sciences III
(Previously MOT 135 Basic Medical Sciences III)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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.

MOT 1036 Introduction to Clinical Skills
(Previously MOT 126 Introduction to Clinical Skills)
3 Credit Hours ● 67.5 Contact Hours (Lecture/Lab Combination)
Provides hands on experience with the basic clinical skills required for assisting with patient care in an ambulatory setting.

MOT 1050 CPT Coding
(Previously MOT 208 CPT Coding)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: MOT 1050 and MOT 1060 must be taken concurrently
Teaches coding concepts using the CPT coding system for insurance claims. The course will introduce the CMS (centers for Medicare/Medicaid services) 1500 form. HCPCS (healthcare common procedure coding system) coding and modifiers concepts discussed as applicable.

MOT 1060 ICD Coding
(Previously MOT 209 ICD Coding)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: MOT 1060 and MOT 1050 must be taken concurrently
Teaches coding concepts using the ICD (international classification of disease) coding system for insurance claims.

MOT 1061 Intermediate Coding
(Previously MOT 210 Intermediate Coding)
3 Credit Hours • 45 Contact Hours (Lecture)
Employs techniques to analyze information from medical records and code it for insurance purposes. Level I & II and ICD (international classification of disease) coding will be utilized to create medical necessity for services.

MOT 1081 Internship: Administrative
(Previously MOT 181 Internship: Administrative)
2 Credit Hours • 90 Contact Hours (Internship)
Note: Program Coordinator Approval needed to register
Provides supervised placement in contracted facility for guided experience in the psychomotor, cognitive, and affective learning domains acquired in an educational program. Positions are non-paid.

MOT 1082 Internship: Clinical
(Previously MOT 182 Internship: Clinical)
3 Credit Hours • 135 Contact Hours (Internship)
Note: Program Coordinator Approval needed to register
Provides supervised placement in contracted facility for guided experience in the psychomotor, cognitive, and affective learning domains acquired in an educational program. Positions are non-paid.

MOT 2040 Advanced Insurance Billing & Coding
(Previously MOT 131 Advanced Insurance Billing & Coding)
3 Credit Hours • 45 Contact Hours (Lecture)
Prepares the student to code correctly to optimize reimbursements for a full range of medical services by applying data to claim forms using official coding guidelines to eliminate insurance fraud and abuse.

Meteorology Course

MET 1050 General Meteorology with Lab: SC1
(Previously MET 150 General Meteorology with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Provides an introduction to general meteorology and atmospheric sciences. Includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure, and moisture. Examines the development of weather system, such as storm systems, hurricanes, weather fronts, and cloud development. Stresses the concepts of climatology.

Multimedia Graphic Design Courses

MGD 1002 Introduction to Multimedia
(Previously MGD 102 Introduction to Multimedia)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1004 Videography
(Previously MGD 104 Videography)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Offers an introduction to the principles and techniques of videotape production, including camera operation, basic script writing, lighting, sound, and basic digital editing. Detailed examination of the pre-production, production, and post-production processes, as well as aesthetics, will be included.

MGD 1006 Creativity & Visual Thinking
(Previously MGD 106 Creativity & Visual Thinking)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the visual thinking skills necessary to understand and use the creative process, develop innovative concepts and forms, and to produce and analyze creative works. The underlying components of creative thinking, the creative process, and the creative economy are of primary concern in this class. This class is about concept development and sketching.

MGD 1007 History of Design
(Previously MGD 107 History of Design)
2 Credit Hours • 30 Contact Hours (Lecture)
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 1009 Design & Color
(Previously MGD 109 Design & Color)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers the design process and creative problem solving; design and color theories, fundamentals, styles; stages area applied to workups; finished art; and presentations. Emphasis will be online, form, composition, and continuity.

MGD 1010 Lettering for Graphic Design
(Previously MGD 110 Lettering for Graphic Design)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Studies lettering and letter forms; the various methods and mediums used in freehand and mechanically rendered lettering; the design of lettering; and practical applications of lettering in the field of graphic design.

MGD 1011 Adobe Photoshop I
(Previously MGD 111 Adobe Photoshop I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1012 Adobe Illustrator I
(Previously MGD 112 Adobe Illustrator I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1013 Adobe InDesign
(Previously MGD 114 Adobe InDesign)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1014 Typography I
(Previously MGD 116 Typography I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the history and concepts of typography as applied to graphic communications. Explores appropriate use of typography in a variety of design applications, emphasizing the basic design principles of typographic compositions and typesetting. Covers type recognition and typographic terms.

MGD 1015 Typography & Layout
(Previously MGD 105 Typography & Layout)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1002 or concurrent enrollment, or MGD 1012 or concurrent enrollment, or MGD 1013 or concurrent enrollment
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 1017 Introduction to Visual Communications
(Previously MGD 117 Introduction to Visual Communications)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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.

MGD 1020 Production Design
(Previously MGD 103 Production Design)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1011 or concurrent enrollment, or MGD 1012 or concurrent enrollment, or MGD 1013 or concurrent enrollment
Explores the use of tools, computer graphics techniques, and design layout principles to produce professional graphic designs. Studies include printing basics, typography, and digital color systems. Students use creative thinking to solve communication and design concepts for the output process.

MGD 1021 Painter for Digital Media
(Previously MGD 121 Painter for Digital Media)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Teaches students how to work with an illustration and paint software application called Painter. Color and relationships, repeat patterns, animation and digitization are among the topics covered in the course as students explore the possibilities of visual art using computers. Assigned projects cover a wide range of visual approaches. Painter provides an extra competitive edge for students.

MGD 1032 Design & Color II
(Previously MGD 132 Design & Color II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1009
Covers the creative problem-solving techniques for effective design and advertising continuity. Advanced exploration with design devices, theories, and applications will be discussed. Students will continue skills as well as design process development for ideas and concepts through all the layout stages to the finished presentation.

MGD 1034 Drawing for Illustrators
(Previously MGD 134 Drawing for Illustrators)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers fundamentals skills and theories of drawing and rendering line structure, form, value, texture, and composition. Application of drawing skills with various media for line quality as well as value and texture interpretations are also covered.

MGD 1037 Illustration I
(Previously MGD 207 Illustration I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1034 or ART 1201
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 1038 Illustration II
(Previously MGD 208 Illustration II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1037
Addresses methods and techniques used in the illustration profession beyond those covered in Illustration I. Course concentrates on developing expertise in producing color art for reproduction.

MGD 1041 Web Design I
(Previously MGD 141 Web Design I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces web site planning, design and creation utilizing HTML through industry-standard development tools. Emphasis is placed on applying stylistic decisions using cascading style sheets. Web-based considerations regarding color, typography, aesthetics, user interface design, and process integration with visual-based design tools will be explored.

MGD 1043 Motion Graphic Design I: (Software)
(Previously MGD 143 Motion Graphic Design I: (Software))
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Explores the creation of animation and dynamic media for web and multimedia applications, conforming to professional standards. Emphasizes the manipulation of time-based media using key-frames, tweens and other technologies related to the specific software being utilized. Also examines the use of scripts to trigger timeline events and create basic interactive behavior.

MGD 1053 3D Animation I
(Previously MGD 153 3D Animation I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Encompasses all major aspects of creating 3D characters using animation software. Using developed characters, the student will learn how to animate for personality.

MGD 1056 Emergent Media Practices
(Previously MGD 156 Emergent Media Practices)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Explores techniques and approaches in the latest delivery methods for web, mobile, and emergent media communication. Students explore digital media outlets such as blogs, podcasts, e-zines, and social networks. Concepts in video production, photography, journalism, marketing, advertising, public relations, editing and relevant skills necessary for agile mass communication are introduced. Students create communication pieces for internet-based, mobile, and emergent media.

MGD 1064 Digital Video Editing I
(Previously MGD 164 Digital Video Editing I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces digital non-linear 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 1065 After Effects I
(Previously MGD 165 After Effects I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides the fundamental techniques for creating digital motion graphics such as 2D animations, animated logos, video graphics, etc. Classes cover relevant tools and techniques as well as industry standards, delivery methods, and output.

MGD 1078 Seminar/Workshop
(Previously MGD 178 Seminar/Workshop)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides students with an exceptional learning experience.

MGD 108 History of Illustration
2 Credit Hours • 30 Contact Hours (Lecture)
Presents a selected overview of the origins of illustration to the present giving equal emphasis to commercial illustration, fine art, and gallery illustration. Special attention is paid to stylistic changes, work methods, and social context.

MGD 1080 Internship
(Previously MGD 180 Internship)
1-12 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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 1904 Director I
(Previously MGD 161 Director I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Examines Macromedia Director, the leading authoring tool for interactive multimedia from the art director's perspective. Students will learn the basics of 2D animation for both computer presentations and the web. Interface design and scene development are emphasized. Hands-on projects include lingo scripts, behaviors, adding sound and digital video to student's movies.

MGD 2001 Children's Book Illustration
(Previously MGD 201 Children's Book Illustration)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1009
Studies the artist's role as a visual storyteller, with completion of a finished project to portfolio. Covers adapting a story into character development, story boarding, visual, editing and constructing the final drawing. Special attention to specifications, deadlines, reproduction requirements, and professionalism.

MGD 2002 Point of Purchase Packaging Design
(Previously MGD 202 Point of Purchase Packaging Design)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1012
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 2011 Adobe Photoshop II
(Previously MGD 211 Adobe Photoshop II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1011
Develops and reinforces image composition techniques learned in Adobe Photoshop I, MGD 1011. Fundamentals are continuously reinforced as new design techniques are introduced.

MGD 2012 Adobe Illustrator II
(Previously MGD 212 Adobe Illustrator II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1012
Expands the skillful practice and strategic use of Adobe Illustrator as a vector-based design tool in traditional and emerging workflows.

MGD 2013 Electronic Prepress
(Previously MGD 213 Electronic Prepress)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1011, MGD 1012, MGD 1013
Explores in detail the electronic prepress process. Students examine steps for preparing a digital file for trapping, output considerations, and proofing techniques. Creating effective electronic designs and efficient use of today's software programs are also covered.

MGD 2014 Typography II
(Previously MGD 217 Typography II)
3 Credit Hours ● 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1014 or MGD 1015
Expands the investigation of typographic form, function and meaning within the context of contemporary visual language. Students will learn to effectively use typography as a solution to many diverse visual language applications. Students will build conceptualization skills while further experimenting with the aesthetic, formal and functional role typography plays in the creation of meaning. Students will learn how type is applied to grid systems and will explore an increasing complexity of content organization, encompassing multipage formats, websites, and systems design considerations.

MGD 2015 Painting for Illustrators
(Previously MGD 215 Painting for Illustrators)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Develops a more refined visual vocabulary, concentrating only on wet media both monochromatic and full color. Projects are more self-directed with emphasis on research, content composition, and professional expectation of the illustration in the graphic area.

Working from both life and photographic subjects, the student will develop skills to achieve control of the painterly illustration media.

MGD 2021 Computer Graphics I
(Previously MGD 221 Computer Graphics I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1011, MGD 1012, MGD 1013, MGD 1014
Introduces the process of generating computer design.

MGD 2022 Computer Graphics II
(Previously MGD 222 Computer Graphics II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 2021
Continues MGD 2021 with advanced problems in generating computer design for graphics application, emphasizing production of individual fine art pieces.

MGD 2023 Graphic Storytelling I
(Previously MGD 223 Graphic Storytelling I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Addresses the artistic methods and techniques used in the development of sequential art. Course concentrates on developing conceptual and technical skills necessary to produce shorter format comic and comic strip art. Emphasis will be placed on contemporary B&W comic illustration techniques.

MGD 2035 Word & Image 1: Comics
(Previously MGD 235 Word & Image 1: Comics)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Presents a selected overview of the origins and development of narrative illustration as it relates specifically to the genre of comics. Students will explore the fundamentals of developing and illustrating comics, encompassing single panel comics, and word + image-based comics.

MGD 2037 Illustration III
(Previously MGD 209 Illustration III)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1038
Continues Illustration II with added emphasis on conceptual development and proficiency in technique.

MGD 2038 Illustration IV
(Previously MGD 210 Illustration IV)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 2037
Covers advanced illustration techniques including manual, computer, and mixed media techniques.

MGD 2041 Web Design II
(Previously MGD 241 Web Design II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1041
Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, JavaScripts, and CGI forms. Color usage and interface design principles are emphasized in this course. This course will examine Web sites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

MGD 2042 Web Architecture: Open Source Design
(Previously MGD 242 Web Architecture: Open Source Design)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1041
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. Design focus is on information hierarchy in how it pertains to User Interface (UI) and User Experience (UX) and Search Engine Optimization (SEO). Topics include current content management systems (CMS) such

as WordPress and/or Drupal, identifying web scripting languages, and an overview of open-source programming and database integration.

MGD 2043 Web Motion Graphic Design II
(Previously MGD 243 Web Motion Graphic Design II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1043
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 web sites. Web site justification of motion graphics will be stressed, appraised, and weighed.

MGD 2058 User Experience/User Interface Design (UX/UI)
(Previously MGD 258 User Experience/User Interface Design (UX/UI))
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Examines development of multimedia from a production standpoint. The process of transforming conceptual designs into actual projects is explored. Students study the management function of those tasks associated with the business end of development. Teamwork is emphasized throughout the course.

MGD 2059 Management & Production
(Previously MGD 259 Management & Production)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Examines development of multimedia from a production standpoint. The process of transforming conceptual designs into actual projects is explored. Students study the management function of those tasks associated with the business end of development. Teamwork is emphasized throughout the course.

MGD 2064 Digital Video Editing II
(Previously MGD 264 Digital Video Editing II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1064
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 2065 After Effects II
(Previously MGD 265 After Effects II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: MGD 1065
Provides advanced skills and techniques for creating digital motion graphics. The course covers relevant tools and techniques as well as industry standards, specialized techniques, and additional tools and resources.

MGD 2068 Business for Creatives
(Previously MGD 268 Business for Creatives)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2080 Internship
(Previously MGD 280 Internship)
1-12 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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 2089 Capstone
(Previously MGD 289 Capstone)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
A demonstrated culmination of learning within a given program of study.

Music Courses

MUS 1000 Music Theory Fundamentals I
(Previously MUS 100 Music Theory Fundamentals I)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the foundational elements of music theory. The course will cover clef reading, pitch and rhythmic notation, intervals, scales, key signatures, triads and diatonic chords, and an introduction to ear training and sight singing. The course will help beginning music students, including those who have limited background reading music notation and understanding the fundamentals of music theory.

MUS 1001 Music Theory Fundamentals II
(Previously MUS 101 Music Theory Fundamentals II)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues to develop fluency with foundational elements of music theory through continued drills and exercises. The course expands on principles of music notation, harmonization, intervals, chord analysis, rhythm, ear training, and sight singing. The course will help non-music major students who wish to further develop fluency in fundamental music theory and music notation.

MUS 1005 Introduction to Computer Applications
(Previously MUS 105 Introduction to Computer Applications)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the use of computers in the music industry. Explores current use of MIDI instrument, MIDI sequencing, MIDI editing, audio editing, notation software, and set-up of Digital Audio Workstation.

MUS 1010 Music Theory I
(Previously MUS 110 Music Theory I)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: MUS 1010, MUS 1012, and MUS 1031 must be taken together
Reviews and builds upon music fundamentals, diatonic harmony, phrase structure, and analysis. The course introduces voice leading and four-part harmony in root position and inversions.

MUS 1011 Music Theory II
(Previously MUS 111 Music Theory II)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: MUS 1011, MUS 1013 and MUS 1032 must be taken together
Introduces harmony through four-part writing studying principles of harmonic progression, modulation, diatonic seventh chords, secondary dominants, keyboard harmony, and score analysis of binary and ternary form.

MUS 1012 Ear Training/Sight-singing I Lab
(Previously MUS 112 Ear Training/Sight-singing I Lab)
1 Credit Hour • 37.5 Contact Hours (Studio)
Note: MUS 1010, MUS 1012, and MUS 1031 must be taken together
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 1013 Ear Training/Sight-singing II Lab
(Previously MUS 113 Ear Training/Sight-singing II Lab)
1 Credit Hour • 37.5 Contact Hours (Studio)
Note: MUS 1011 and MUS 1013 must be taken together
Continues to develop sight singing, rhythm reading, and dictation skills. The course includes expanded exercises in sight singing, rhythmic reading, and melodic and rhythmic dictation, as well as performance of melodies and rhythmic reading exercises. This course includes ear training topics.

MUS 1020 Music Appreciation: AH1
(Previously MUS 120 Music Appreciation: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

MUS 1021 Music History Medieval thru Classical: AH1
(Previously MUS 121 Music History Medieval thru Classical: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

MUS 1022 Music History Early Romantic Period to the Present: AH1
(Previously MUS 122 Music History Early Romantic Period to the Present: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a 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.

MUS 1023 Survey of World Music: AH1
(Previously MUS 123 Survey of World Music: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an overview of music from around the globe including folk, ethnic, non-Western, and popular styles. Develops basic listening skills and builds a historical/cultural context for world music styles to enable an understanding and appreciation of global music.

MUS 1025 History of Jazz: AH1
(Previously MUS 125 History of Jazz: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
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.

MUS 1026 History of Rock & Pop
(Previously MUS 126 History of Rock & Pop)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a survey of basic materials of music, musical forms, media, genres, and musical style of American rock and popular music from the late 19th century to the present. Focus of the course will be on studying genres and styles within the context of their role in American society, culture, and political landscape.

MUS 1031 Music Class I
(Previously MUS 131 Music Class I)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Provides group instruction in music, introducing basic techniques, repertoire, and sight-reading.

MUS 1032 Music Class II
(Previously MUS 132 Music Class II)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Provides group instruction in music, continuing to develop basic techniques, repertoire, and sight-reading.

MUS 1033 Music Class III
(Previously MUS 133 Music Class III)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Provides group instruction in music, continuing to develop basic techniques, repertoire, and sight-reading.

MUS 1034 Music Class IV
(Previously MUS 134 Music Class IV)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Provides group instruction in music, continuing to develop techniques, repertoire, and sight-reading.

MUS 1041 Private Instruction I: (Specify)
(Previously MUS 141 Private Instruction I: (Specify))
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
Focuses on individual instruction: instrument, voice, conducting, or composition, first year, first semester.

MUS 1042 Private Instruction II: (Specify)
(Previously MUS 142 Private Instruction II: (Specify))
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
Continues individual instruction: instrument, voice, conducting, or composition, first year, second semester.

MUS 1043 Private Instruction III: (Specify)
(Previously MUS 143 Private Instruction III: (Specify))
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
Continues individual instruction: instrument, voice, conducting, or composition, second year, first semester.

MUS 1044 Private Instruction IV: (Specify)
(Previously MUS 144 Private Instruction IV: (Specify))
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
Continues individual instruction: instrument, voice, conducting, or composition, second year, second semester.

MUS 1051 Ensemble I: (Specify)
(Previously MUS 151 Ensemble I: (Specify))
1 Credit Hour • 37.5 Contact Hours (Studio)
Provides opportunities for students to perform in ensembles. Ensembles will perform a diverse variety of musical styles and genres. Rehearsal techniques, performance skills, and professionalism are key components of this course. It is geared for first year, first semester students.

MUS 1052 Ensemble II: (Specify)
(Previously MUS 152 Ensemble II: (Specify))
1 Credit Hour • 37.5 Contact Hours (Studio)
Provides opportunities for students to perform in ensembles. Ensembles will perform a diverse variety of musical styles and genres. Rehearsal techniques, performance skills, and professionalism are key components of this course. It is geared for first year, second semester students.

MUS 1053 Ensemble III: (Specify)
(Previously MUS 153 Ensemble III: (Specify))
1 Credit Hour • 37.5 Contact Hours (Studio)
Provides opportunities for students to perform in ensembles. Ensembles will perform a diverse variety of musical styles and genres. Rehearsal techniques, performance skills, and professionalism are key components of this course. It is geared for second year, first semester students.

MUS 1054 Ensemble IV: (Specify)
(Previously MUS 154 Ensemble IV: (Specify))
1 Credit Hour • 37.5 Contact Hours (Studio)
Provides opportunities for students to perform in ensembles. Ensembles will perform a diverse variety of musical styles and genres. Rehearsal techniques, performance skills, and professionalism are key components of this course. It is geared for second year, second semester students.

MUS 1061 Computer Music Applications I
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces audio signal flow, Digital Audio Workstation (DAW), current computer music software, digital audio practices, Musical Instrument Digital Interface (MIDI) sequencing, and audio for video.

MUS 1067 Music Business I
(Previously MUS 167 Music Business I)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a foundational overview of the current, historic, and projected business practices in the music entertainment industry. Course provides opportunities to gain an understanding of the music entertainment industry including copyright, labels, publishing, licensing, distribution, marketing, finance, legal considerations, and current and future opportunities.

MUS 2010 Music Theory III
(Previously MUS 210 Music Theory III)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: MUS 2010 must be taken with MUS 2012
Continues study of four-part music, including extended harmonic progressions of ninth, eleventh, and thirteenth chords, extended alteration, non-chord tones, modulation, and compositions.

MUS 2011 Music Theory IV
(Previously MUS 211 Music Theory IV)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: MUS 2011 must be taken with MUS 2013
Continues the study of chromatic harmony and analysis. This course introduces 20th and 21st century compositional techniques, including Impressionism, serialism, non-tertian harmonies, and further study in forms and analysis.

MUS 2012 Ear Training/Sight-Singing Lab III
(Previously MUS 212 Ear Training/Sight-Singing Lab III)
1 Credit Hour • 37.5 Contact Hours (Studio)
Note: MUS 2012 must be taken with MUS 2010. Follow sequence or have faculty consent to enroll.
Covers sight singing and melodic dictation using modulation and chromaticism. It covers harmonic dictation including diatonic and chromatic harmonic progressions. It will emphasize rhythmic reading and dictation including syncopation and asymmetrical meters.

MUS 2013 Ear Training/Sight-Singing Lab IV
(Previously MUS 213 Ear Training/Sight-Singing Lab IV)
1 Credit Hour • 37.5 Contact Hours (Studio)
Note: MUS 2013 must be taken with MUS 2011. Follow sequence or have faculty consent to enroll.
Covers sight singing and ear training skills related to musical styles since 1900.

MUS 2031 Music Class I:
(Previously MUS 231 Music Class I:)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Note: Must have faculty consent to enroll
Group instruction in music. Introduces techniques, repertoire, and sight-reading.

MUS 2032 Music Class II:
(Previously MUS 232 Music Class II:)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Note: Must have faculty consent to enroll
Group instruction in music. Introduces techniques, repertoire, and sight-reading.

MUS 2033 Music Class III:
(Previously MUS 233 Music Class III:)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Note: Must have faculty consent to enroll
Group instruction in music. Introduces techniques, repertoire, and sight-reading.

MUS 2034 Music Class IV:
(Previously MUS 234 Music Class IV:)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Note: Must have faculty consent to enroll
Group instruction in music. Introduces techniques, repertoire, and sight-reading.

MUS 2041 Private Instruction
(Previously MUS 241 Private Instruction)
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
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 2042 Private Instruction
(Previously MUS 242 Private Instruction)
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
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, third term.

MUS 2043 Private Instruction
(Previously MUS 243 Private Instruction)
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
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, third term.

MUS 2044 Private Instruction
(Previously MUS 244 Private Instruction)
1-2 Credit Hours • 7.5-15 Contact Hours (Private Instruction)
Note: Must have Department Chair consent to enroll
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, fourth term. May be repeated for credit more than once per individual institution policy.

MUS 2051 Ensemble I
(Previously MUS 251 Ensemble I)
1 Credit Hour • 37.5 Contact Hours (Studio)
Rehearses and performs various types of musical literature. Second year, first term.

MUS 2052 Ensemble II
(Previously MUS 252 Ensemble II)
1 Credit Hour • 37.5 Contact Hours (Studio)
Rehearses and performs various types of musical literature. Second year, second term.

MUS 2053 Ensemble III
(Previously MUS 253 Ensemble III)
1 Credit Hour • 37.5 Contact Hours (Studio)
Rehearses and performs various types of musical literature. Second year, third term.

MUS 2054 Ensemble IV
(Previously MUS 254 Ensemble IV)
1 Credit Hour • 37.5 Contact Hours (Studio)
Rehearses and performs various types of musical literature. Second year, fourth term.

Natural Resources Courses

NRE 1002 Introduction to Natural Resources Management
(Previously NRE 102 Introduction to Natural Resources Management)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers an overview of our natural resources, the environmental concerns related to their management, and the agencies in charge of management of natural resources.

NRE 1100 Foundations of Forestry
(Previously NRE 100 Foundations of Forestry)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Presents the principles of forest science, dendrology, forest fire behavior, and silviculture principles.

NRE 2012 Ecosystem Management
(Previously NRE 212 Ecosystem Management)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on the larger landscape in order to integrate the human, biological, and physical dimensions of natural resource management. Collaborative management techniques are discussed.

NRE 2014 Environmental Issues & Ethics
(Previously NRE 214 Environmental Issues & Ethics)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on special environmental problems, current issues, or trends. Traditional and environmental philosophies are discussed. Students debate various environmental issues.

NRE 2025 Environmental Education
(Previously NRE 225 Environmental Education)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces students to the history, legislation, principles, and goals of environmental literacy and education. Students will apply this understanding by creating, presenting, and evaluating an environmental lesson and environmental education project.

NRE 2036 Public Relations of Natural Resources
(Previously NRE 236 Public Relations of Natural Resources)
2 Credit Hours • 30 Contact Hours (Lecture)
Offers an overview of professional communications with an emphasis on communication challenges encountered in environmental situations. Students will gain an understanding of direct and media communications with an emphasis on dialogue and research. Management planning and communications techniques will be explored as they apply to environmental case situations. Provides students with skills necessary for working directly or indirectly with the media and gives a broad understanding of the importance of customer service and outreach in environmental and natural resources fields.

NRE 2078 Workshop/Seminar
(Previously NRE 278 Workshop/Seminar)
1-6 Credit Hours • Per Credit Hour, 15 Contact Hours (Seminar)
Provides students with an experiential learning opportunity.

NRE 2080 Internship
(Previously NRE 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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.

NRE 2204 Range Management & Restoration
(Previously NRE 204 Range Management & Restoration)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: NRE 2205
Covers management of rangelands, important plants, rangeland communities, and restoration practices to restore disturbed ecosystems. Field measurement techniques of ecosystem components will be emphasized.

NRE 2205 Wildlife & Fisheries Management Principles
(Previously NRE 205 Wildlife & Fisheries Management Principles)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers theory, philosophy, and applications for study and management of wildlife and fisheries resources. Field and laboratory methods used in wildlife management also covered.

Nursing Courses

NUR 1006 Medical & Surgical Nursing Concepts
(Previously NUR 106 Medical & Surgical Nursing Concepts)
7 Credit Hours • 213 Contact Hours (51 Lecture (3.4 credit hours), 13.5 Lab (0.3 credit hours), 148.5 Clinical (3.3 credit hours))
Prerequisite: Successful completion of the preceding nursing program coursework; BIO 2102, MAT 1120, NUR 1009, NUR 1012
Corequisite: BIO 2116, NUR 1050
Note: BIO 2116 may be taken during the second semester in the Nursing Program
NUR 1006 is the first medical/surgical nursing course. Building on NUR 1009, 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 1009 Fundamentals of Nursing
(Previously NUR 109 Fundamentals of Nursing)
6 Credit Hours • 210 Contact Hours (30 Lecture, 90 Lab, 90 Clinical)
Prerequisite: BIO 2101, BIO 2104, ENG 1021, PSY 2440
Co-requisite: BIO 2102, MAT 1120
Note: BIO 2102 and MAT 1120 may be taken during the first semester in the Nursing Program
NUR 1009 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 1012 Basic Concepts of Pharmacology
(Previously NUR 112 Basic Concepts of Pharmacology)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: Permission of program director. Admission to the program
Corequisite: NUR 1009
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 1050 Maternal - Child Nursing
(Previously NUR 150 Maternal - Child Nursing)
6 Credit Hours • 171 Contact Hours (49.5 Lecture, 31.5 Lab, 90 Clinical)
Prerequisite: Successful completion of preceding nursing coursework; BIO 2102, MAT 1120, NUR 1009, NUR 1012
Corequisite: BIO 2116, NUR 1006
Note: BIO 2116 may be taken during the second semester in the Nursing Program
NUR 1050 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 1068 Introduction to Professional Nursing Practice for Paramedics
1 Credit Hours • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: Unencumbered Paramedic certification or license
Co- prerequisite: Acceptance into the Paramedic to RN Bridge program
Introduces the paramedic to nursing principles that supports future clinical practice. These principles include the professional nursing role, nursing process, evidence-based practice, and patient centered care. Nursing process will be defined as the essential core of practice for the professional nurse to deliver holistic, patient-centered care. Emphasis will be to demonstrate nursing skills common to the in-patient setting.

NUR 1069 Transition into Practical Nursing
(Previously NUR 169 Transition into Practical Nursing)
5 Credit Hours • 120 Contact Hours (30 Lecture, 90 Clinical)
Prerequisite: Permission of program director. NUR 1006, NUR 1050
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 1089 Transition from LPN to ADN
(Previously NUR 189 Transition from LPN to ADN)
4 Credit Hours • 90 Contact Hours (30 Lecture, 30 Lab, 30 Clinical)
Prerequisite: Permission of program director. Acceptance into LPN/RN 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 2001 IV Therapy for LPNs
2.5 Credit Hours • 56.25 Contact Hours (Lecture/Lab Combination)
Prerequisite: Unencumbered license
Co- prerequisite: Program Director Acceptance
Provides LPNs with an opportunity to expand their nursing roles by learning appropriate procedures for intravenous therapy and venous blood withdrawal. The course includes lecture, laboratory practice and clinical experiences. The course prepares the student for IV certification under State Board of nursing Guidelines.

NUR 2006 Advanced Concepts of Medical-Surgical Nursing I
(Previously NUR 206 Advanced Concepts of Medical-Surgical Nursing I)
6.5 Credit Hours • 202.5 Contact Hours (45 Lecture, 22.5 Lab, 135 Clinical)
Prerequisite: Permission of program director. Successful completion of preceding nursing program course work.
Corequisite: NUR 2011, NUR 2012
NUR 2006 builds on NUR 1006 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 2011 Psychiatric-Mental Health Nursing
(Previously NUR 211 Psychiatric-Mental Health Nursing)
4 Credit Hours • 99 Contact Hours (40.5 Lecture (2.7 Credit Hours), 58.5 Clinical (1.3 Credit Hours))
Prerequisite: Permission of program director. Successful completion of preceding nursing program course work.
Corequisite: NUR 2006, NUR 2012
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 2012 Pharmacology II
(Previously NUR 212 Pharmacology II)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: Permission of program director. NUR 1006, NUR 1050
Corequisite: NUR 2006, NUR 2011
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 2016 Advanced Concepts of Medical-Surgical Nursing II
(Previously NUR 216 Advanced Concepts of Medical-Surgical Nursing II)
5 Credit Hours • 156 Contact Hours (34.5 Lecture (2.3 credit hours), 121.5 Clinical (2.7 credit hours)
Prerequisite: Permission of program director. Successful completion of preceding nursing program course work.
NUR 2016 is a continuation of NUR 2006, 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 2030 Transition to Professional Nursing Practice
(Previously NUR 230 Transition to Professional Nursing Practice)
4 Credit Hours • 132 Contact Hours (24 Lecture, 108 Clinical)
Prerequisite: Permission of program director. NUR 2011, NUR 2012
NUR 2030 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 3001 Integration into Baccalaureate Nursing Practice
(Previously NUR 301 Integration into Baccalaureate Nursing Practice)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores professional nursing practice at the baccalaureate level. The course focuses on knowledge and understanding of the professional nursing standards and the nursing role at the baccalaureate level.

NUR 3002 Trends in Nursing Practice
(Previously NUR 302 Trends in Nursing Practice)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: NUR 3001 or concurrent enrollment
Examines current issues that nurses encounter in the health care environment including their roles and responsibilities within the nursing profession.

NUR 3003 Nursing Research / Evidence Based Practice
(Previously NUR 303 Nursing Research / Evidence Based Practice)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: MAT 1260, NUR 3001, NUR 3002
Analyzes concepts associated with nursing research, collection, and analysis of data with emphasis on integration of evidence-based practice within nursing. The course develops the skills for critiquing published research.

NUR 3004 Informatics / Healthcare Technology
(Previously NUR 304 Informatics / Healthcare Technology)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: NUR 3002 or concurrent enrollment
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 3005 Emergency Preparedness
(Previously NUR 305 Emergency Preparedness)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: NUR 3002 or concurrent enrollment
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 3006 Gerontology Nursing
(Previously NUR 306 Gerontology Nursing)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: NUR 3002 or concurrent enrollment
Focuses on optimizing health for the aging client within the framework of the nursing process. The course places emphasis on supporting the unique needs of the aging population.

NUR 3007 Behavioral Health
(Previously NUR 307 Behavioral Health)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: NUR 3002 or concurrent enrollment
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 4008 Legal & Ethical Issues Related to Professional Nursing Practice
(Previously NUR 408 Legal & Ethical Issues Related to Professional Nursing Practice)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: NUR 3001, NUR 3002; NUR 3003 or concurrent enrollment
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 with be explored.

NUR 4009 Leadership in the Nursing Profession
(Previously NUR 409 Leadership in the Nursing Profession)
3.5 Credit Hours • 63.75 Contact Hours (41.25 Lecture, (2.75 Credits), 22.5 Practicum (0.75 Credits)
Prerequisite: NUR 3001, NUR 3002, NUR 3003, NUR 4008
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 4010 Community Health Nursing/Practicum
(Previously NUR 410 Community Health Nursing/Practicum)
6 Credit Hours • 112.5 Contact Hours (67.5 Lecture, (4.5 Credits), 45 Practicum (1.5 Credits)
Prerequisite: NUR 3001, NUR 3002, NUR 3003, NUR 4008
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 4011 Senior Seminar
(Previously NUR 411 Senior Seminar)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: NUR 3001, NUR 3002, NUR 3003, NUR 4008; NUR 4009 or concurrent enrollment, 4010 or concurrent enrollment
Integrates theory into practice by building on previous concepts and knowledge.

Nursing Assistant Courses

NUA 1001 Nurse Aide Health Care Skills
(Previously NUA 101 Nurse Aide Health Care Skills)
4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lab)
Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing 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 1002 Certification Exam Prep
(Previously NUA 102 Certification Exam Prep)
0.5 Credit Hours • 15 Contact Hours (Lab)
Grading: P/F only
Helps prepare the student for the National Nurse Aide Assessment Program (NNAAP) examination.

NUA 1005 Home Health Aide Theory
(Previously NUA 105 Home Health Aide Theory)
2 Credit Hours • 30 Contact Hours (Lecture)
Introduces the student to the expanding field of Home Health Nursing. The student will discover the uniqueness of Home Health Care and the vital role that the nursing assistant plays as part of the home care team. The student will learn how to assist home care patients with activities of daily living and maintain a safe, clean, and comfortable environment. The student will also learn the differences and challenges of caring for patients in their natural home environment versus institutional settings.

NUA 1070 Nurse Aide Clinical Experience
(Previously NUA 170 Nurse Aide Clinical Experience)
1 Credit Hour • 30 Contact Hours (Clinical)
Prerequisite: NUA 1001 or concurrent enrollment
Note: Must have current CPR for Health Care Provider (BLS) card, negative TB test or chest X-ray, and current immunizations
Grading: P/F only
Applies knowledge and skill gained in NUA 1001 to patient care.

NUA 1071 Clinical: Advanced Nurse Aide
(Previously NUA 171 Clinical: Advanced Nurse Aide)
1 Credit Hour • 30 Contact Hours (Clinical)
Prerequisite: NUA 1001 or concurrent enrollment, NUA 1070 or concurrent enrollment
Note: Must have current CPR for Health Care Provider (BLS) card, negative TB test or chest X-ray, and current immunizations
Grading: P/F only
Expands and applies knowledge and skill gained in NUA 1070 to client care.

NUA 1074 Acute Care Nurse Aide Skills
(Previously NUA 174 Acute Care Nurse Aide Skills)
1 Credit Hour • 36 Contact Hours (Clinical)
Prerequisite: NUA 1001 or concurrent enrollment, NUA 1070 or concurrent enrollment, NUA 1071 or concurrent enrollment
Note: Must have current CPR for Health Care Provider (BLS) card, negative TB test or chest X-ray, current immunizations and be 18 years of age.
Grading: P/F only
Explores the role of the acute care nurse aide in communication, safety issues and advanced nurse aide skills. Knowledge will be gained regarding patient findings to report to the nurse and will be proficient in performance of advanced acute care nurse aide skills. Caring for patients going to surgery or for special procedures will be discussed and patient rights in the acute care setting will be explored.

Occupational Safety Technician Courses

OSH 1310 10-HR Construction Industry Standards
(Previously OSH 127 10-HR Construction Industry Standards)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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.

OSH 1311 30-HR Construction Industry Standards
(Previously OSH 126 30-HR Construction Industry Standards)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a 30-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.

Outdoor Studies Courses

OUT 1010 Wilderness Survival Skills
(Previously OUT 108 Wilderness Survival Skills)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
This course emphasizes the physiological, psychological, and practical principles of survival. Survival equipment, wilderness improvising techniques, and wilderness dangers are included.

OUT 1020 Backcountry Navigation
(Previously OUT 102 Backcountry Navigation)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Teaches efficient backcountry navigation in a field-based or classroom setting using topographic maps and other appropriate navigation tools.

OUT 1050 Backcountry Cooking
(Previously OUT 144 Backcountry Cooking)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Focuses on menu planning, nutritional requirements for wilderness camping, and meal preparations. Includes cooking a backcountry meal.

OUT 1080 Wilderness Emergency Medical Services Program Orientation
(Previously OUT 246 Wilderness Emergency Medical Services Program Orientation)
0.5 Credit Hours • 11.25 Contact Hours (Lecture/Lab Combination)
Provides an orientation to the Wilderness Emergency Medical Services (WEMS) program. This course introduces methodologies and focuses on the roles and responsibilities of the wilderness professional rescuer. Topics include WEMS philosophy, methodologies, roles, responsibilities, jobs, leadership and teamwork, equipment, and an overall emphasis on how to model ideal characteristics of wilderness professional rescuers for successful workforce placement.

OUT 1087 Cooperative Education Internship
(Previously OUT 187 Cooperative Education Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Note: Must have faculty consent to enroll
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 will work with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer or work site supervisor.

OUT 1120 Backpacking
(Previously OUT 143 Backpacking)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Provides skills related to wilderness travel and outdoor adventure. Emphasizes knowledge of backpacking skills, survival techniques, proper physical conditioning, route finding, equipment selection, and an understanding and respect for the environment. The course incorporates lecture and discussion sessions followed by a weekend trip in the mountains.

OUT 1125 Mountain Orientation
(Previously OUT 112 Mountain Orientation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes camp and travel skills within a mountain environment as a self-contained group. Areas of study include backpacking skills, safety procedures, ecology, geology, geography, safe and efficient travel, Leave No Trace principles, and group dynamics.

OUT 1130 Desert Orientation
(Previously OUT 113 Desert Orientation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes camp and travel skills within a desert environment as a self-contained group. Areas of study include backpacking skills, safety procedures, ecology, geology, geography, safe and efficient travel, Leave No Trace principles, and group dynamics.

OUT 1135 Canyon Orientation
(Previously OUT 114 Canyon Orientation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes camp and travel skills within a canyon environment as a self-contained group. Areas of study include backpacking skills, safety procedures, ecology, geology, geography, safe and efficient travel, Leave No Trace principles, and group dynamics.

OUT 1160 Mountain Biking
(Previously OUT 126 Mountain Biking)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces basic mountain biking skills and techniques. The primary emphasis is to gain an understanding of the basic principles of mountain biking. Students develop skills and techniques for all riding situations, review bicycle anatomy, and basic maintenance and repairs.

OUT 1200 Wilderness Ethics
(Previously OUT 134 Wilderness Ethics)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes the motivation, aesthetics, and ethics of wilderness. Examines viewpoints from Native American, Western, historic, and modern environmental writers.

OUT 1205 Leave No Trace Trainer Cert
(Previously OUT 136 Leave No Trace Trainer Cert)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces the student to the principles of Leave No Trace and prepares students to teach Leave No Trace curriculum in a variety of outdoor and urban settings. This class is a must for guides, outfitters, outdoor educators, agency employees, scout/youth group leaders, or anyone who cares about minimizing impact on the Colorado backcountry.

OUT 1210 Risk Management for Outdoor Professionals
(Previously OUT 135 Risk Management for Outdoor Professionals)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces risk management in the outdoor environment. Students will gain a better understanding of the inherent risks associated with various outdoor activities. They will learn how to analyze and minimize those risks, how to establish emergency protocols to react to those risks, and how to take the proper steps to resolve the consequences from those risks. After learning to identify, assess and reduce the risk, students will write a risk management plan specific to their area of interest. This course will cover outdoor leadership skills and delve into backcountry emergency situations and scenarios.

OUT 1300 Kayaking
(Previously OUT 137 Kayaking)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Provides basic kayak and water reading skills. The students will learn boating safety, hazard evaluation, terminology, whitewater river reading skills, paddling strokes, bracing techniques, peel out and eddy turns, and rescue and self-rescue techniques including wet exits, Eskimo rescues and introduction to and practice of the Eskimo roll.

OUT 1310 White Water Rafting
(Previously OUT 138 White Water Rafting)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
This field experience course provides whitewater boat handling and reading skills through experience on selected rivers in Colorado and Utah. Students will learn river trip planning, safety procedures, equipment, logistics, camp management, hazard evaluation and minimum environmental impact on environments. Safe and efficient river travel, leadership and judgment development are emphasized.

OUT 1330 River Orientation
(Previously OUT 116 River Orientation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes camp and travel skills in whitewater river environments as a self-contained group. Areas of study include boat handling skills, safety procedures, ecology, geology, geography, safe and efficient travel, Leave No Trace principles, and group dynamics.

OUT 1350 Flyfishing I
(Previously OUT 119 Flyfishing I)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Enables the student to gain the knowledge and skill of the fine art of flyfishing including the selection and use of appropriate equipment, fly-casting techniques, flyfishing entomology and guiding techniques. Includes several field trips to local flyfishing areas.

OUT 1385 Scuba Diving
(Previously OUT 201 Scuba Diving)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Note: Instructor Signature Required
Provides basic instruction in scuba diving. Focuses on the knowledge and skills related to swimming and snorkeling, diving equipment, communications, the environment, safety, dive tables, and other pertinent information a student needs for safe scuba diving. This course prepares the student for open-water (PADI) certification.

OUT 1390 Assistant Scuba Instructor
(Previously OUT 206 Assistant Scuba Instructor)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 2005
Note: Instructor Signature Required
Introduces the student to the skills needed to teach scuba diving. The classroom sessions start to develop the student's ability to set up teaching presentations, confined water presentations, open water presentations, standards, and procedures for conducting Scuba diving courses and marketing of scuba to the general public. The pool sessions fine tune the student's ability to teach skills and demonstrate skills to training divers. The open water sessions show students how to evaluate divers' skills in a real-world environment.

OUT 1510 Rock Climbing I
(Previously OUT 131 Rock Climbing I)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces basic rock climbing, improving dexterity, problem solving skills and the physical work capacity of an individual. Enables the student to gain an understanding of the general principles of climbing; how equipment works and how it is used; basic climbing skills and techniques; safety and climbing etiquette and terminology.

OUT 1520 Ice Climbing I
(Previously OUT 129 Ice Climbing I)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces technical (roped) ice climbing, including equipment selection and safety, knots, belaying and climbing, rappelling, and climbing safety.

OUT 1530 Technical Canyoneering
(Previously OUT 133 Technical Canyoneering)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces students to a variety of travel techniques for non-technical and technical canyon environments. Topics include weather, canyon geography, navigation, group management and safety, technical rope work, climbing skills and self-rescue. A variety of wet and dry canyon travel techniques will be practices, including walking, scrambling, climbing, rappelling, jumping, and swimming. Leave No Trace techniques in a desert canyon environment as well as a general knowledge of natural history and cultural history of the region will be emphasized.

OUT 1540 Challenge Course Facilitation
(Previously OUT 216 Challenge Course Facilitation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Provides approaches to challenge course management including construction and maintenance of high and low elements, facilitation and group dynamics, risk management and safety, and challenge course philosophies.

OUT 1550 Mountaineering
(Previously OUT 101 Mountaineering)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides students with a combination of skills and practical experience in the fundamentals of mountaineering. Emphasizes basic climbing skills and techniques, equipment usage, safety systems, mountain travel and awareness, problem solving and decision-making, high altitude climate and weather, wilderness ethics, and physical fitness.

OUT 1560 Caving I
(Previously OUT 110 Caving I)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces the student to the unique cave environment, formation of caves, cave biology, geology, and cave conservation. Reviews caving exploration techniques, caving equipment, caving safety and cave terminology.

OUT 1570 Basic Search & Rescue
(Previously OUT 167 Basic Search & Rescue)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers the basic fundamentals required for search and rescue in a wilderness environment. Includes tracking techniques and field trips.

OUT 1585 Swift Water Rescue Tech I
(Previously OUT 140 Swift Water Rescue Tech I)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Trains and certifies river professionals and recreational users how to handle emergencies and rescue situations on the river. Topics include shallow water crossing, river swims, swimming rescues, shore-based rescues, boat handling and boat-based rescues, related equipment, and communication in a variety of rescue situations.

OUT 1600 Winter Wilderness Survival Skills
(Previously OUT 109 Winter Wilderness Survival Skills)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes winter survival techniques in the nivean environment at or near timberline. Focuses on winter ecology, basic snow science, and avalanche safety and rescue in a backcountry setting. This course includes field days and an overnight in a snow cave.

OUT 1651 Snowshoeing
(Previously OUT 151 Snowshoeing)
1 Credit Hours • 22.5 Contact Hours (Lecture/Lab Combination)
Emphasizes the basic skills, equipment, clothing, and techniques of snowshoeing. It includes the objective dangers involved with winter recreation.

OUT 1670 Avalanche Safety I
(Previously OUT 168 Avalanche Awareness Level I)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces the latest terms, technology, and practices in the field of avalanche safety. Topics discussed include different types of avalanches, avalanche terrain, avalanche rescue, trip planning and gathering field observations. Emphasis is placed on using the avalanche bulletin to make sound terrain decisions. This course meets the American Avalanche Association Recreational Level 1 Avalanche Course guidelines.

OUT 1680 Backcountry Winter Travel

(Previously OUT 209 Backcountry Winter Travel)
1 Credit Hours • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces backcountry travel skills on alpine touring, telemark, or splitboard equipment. Ascending and descending techniques on low angle terrain are emphasized with additional time spent practicing transitions to and from climbing skins. Proper layering, weather considerations, and preparing daily route plans will be covered as part of safe and efficient travel in a non-avalanche winter backcountry environment.

OUT 1685 Snow Orientation

(Previously OUT 115 Snow Orientation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Emphasizes camp and travel skills within a winter environment as a self-contained group. Areas of study include backpacking skills, safety procedures, ecology, geology, geography, safe and efficient travel, Leave No Trace principles, and group dynamics.

OUT 2002 Open Water Diver

(Previously OUT 202 Open Water Diver)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1385
Note: Instructor Signature Required
Grading: P/F only
Requires student divers to demonstrate mastery of performance requirements for four (4) different open water dives to become a certified open water diver through the Professional Association of Diving Instructors (PADI).

OUT 2003 Advanced Open Water Diver

(Previously OUT 203 Advanced Open Water Diver)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 2002
Note: Instructor Signature Required
Extends the student's prior knowledge of diving by introducing them to advanced techniques including deep diving, underwater navigation, night diving, peak performance buoyancy and multilevel diving. The classroom focuses on developing the student's knowledge, while the pool sessions focus on further developing the student's underwater skills. The open water training dives focus on improving the student's diving skills as well as introducing the student to the different types of dives available.

OUT 2005 Divemaster

(Previously OUT 205 Divemaster)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 2300
Note: Instructor Signature Required
Introduces the student to leadership level diving. It trains the student in several areas of focus: dive theory, waterman ship skills, problem solving abilities, role model behavior, student diver management and certified diver management. These skills are learned in both pool and classroom sessions. The practical application phase teaches the student how to deal with student divers as well as certified divers in a leadership role.

OUT 2007 Open Water Scuba Instructor

(Previously OUT 207 Open Water Scuba Instructor)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1390
Note: Instructor Signature Required
Provides the students with specific instructor skills and refines their teaching ability by showing them the most current methods for training divers. Students will fine-tune confined water teaching presentations as well as get more opportunities to polish their abilities to evaluate student diver skills in the confined and open water environments. Students will perform rescues and fine tune rescue abilities as well as demonstrating how to conduct a continuing education course.

OUT 2011 Mountaineering Leadership

(Previously OUT 211 Mountaineering Leadership)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Instructor Signature Required
Develop the knowledge, ability, and leadership skills necessary to instruct and safely lead a group on a mountaineering experience.

OUT 2043 Wilderness First Aid

(Previously OUT 243 Wilderness First Aid)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Introduces wilderness medicine and basic life support skills. This course focuses on prevention, assessment, and treatment of environmental illnesses. Recognizing and stabilizing life threats caused from trauma, calling for a rescue, and organizing an evacuation in the event of a wilderness emergency are also covered.

OUT 2044 Wilderness First Responder

(Previously OUT 244 Wilderness First Responder)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Focuses on the prevention, assessment, and treatment of injuries and illnesses common to backcountry travel as well as how to manage a rescue. The course introduces patient assessment, standards of care, team dynamics, and critical thinking used during wilderness emergencies. This course is intended for outdoor enthusiasts and professionals who travel, recreate, and work in remote environments.

OUT 2045 Wilderness First Responder Refresher

(Previously OUT 245 Wilderness First Responder Refresher)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Note: Instructor Signature Required
Meets the standards for recertification of a Wilderness First Responder certification.

OUT 2068 Avalanche Rescue

(Previously OUT 268 Avalanche Rescue)
0.5 Credit Hours • 11.25 Contact Hours (Lecture/Lab Combination)
Introduces avalanche rescue practices and principles, emphasizing current search techniques and strategies for companion rescue. Topics discussed include avalanche rescue process and principles, avalanche rescue gear, and evacuation considerations. This course meets the American Avalanche Association Avalanche Rescue course guidelines.

OUT 2069 Avalanche Safety II

(Previously OUT 269 Avalanche Safety II)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1670
Enhances understanding of avalanche hazard, avalanche formation, avalanche release, and snowpack evaluation from Level I. This course emphasizes collection and interpretation of snowpack and weather data as well communication, teamwork, and decision-making skills. This course meets the American Avalanche Association Recreational Level II Avalanche Course guidelines.

OUT 2089 Capstone

(Previously OUT 289 Capstone)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Instructor Signature Required
Emphasizes how outdoor recreation leadership can be integrated into future employment opportunities as well as future educational plans. Students will develop a professional portfolio

and will take a comprehensive academic exit exam and a comprehensive skills exit exam.

OUT 2200 Naturalist Training
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Examination of a variety of naturalist topics and identification of multiple plant and animal species including ecosystems, ecology, geology, nature journaling, interpretive guide techniques, and identification of plants, insects, reptiles, amphibians, birds, and mammals.

OUT 2300 Rescue Diver
(Previously OUT 204 Rescue Diver)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 2003
Note: Instructor Signature Required
Introduces the student to being able to help others in a rescue scenario. Teaches the student how to recognize problems at all stages in the rescue process. The classroom sessions focus on theories including stress management. The pool sessions focus on the practical application of assisting divers in trouble. The open water sessions focus on realistic situations. This fine tunes the student's ability to handle different situations and prepares the student for the Divemaster course.

OUT 2310 White Water Rafting Guide
(Previously OUT 139 White Water Rafting Guide)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Meets the requirements of Colorado Statute 33-32-105.5 which provides for the minimum qualifications of professional whitewater rafting guides. The classroom portion includes a review of the logistics, equipment, clothing, safety considerations, risk management, outdoor ethics, river reading fundamentals, and leadership skills. The remainder of the course will be spent with a licensed outfitter practicing all related and required skills while on the river.

OUT 2330 River Orientation II
(Previously OUT 218 River Orientation II)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1330
This course provides advanced-level experience in whitewater raft handling and water reading skills through direct experiences on selected rivers. Students will learn advanced rafting techniques, river trip planning, advanced river safety procedures, equipment, logistics, camp management, hazard evaluation, minimum impact techniques, and the natural history of river environments. Added emphasis will be placed on approaching material from the professional river-guide's perspective. Minimum age: 17.

OUT 2350 Flyfishing II
(Previously OUT 120 Flyfishing II)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1350
Introduces students to the higher-level skill set required for a successful fly-fishing guided experience. Topics will include lake and river dynamics and finding the fish, fly tying, as well as the effects of weather on fishing experiences will be discussed. Various methods of getting the client to the fish will be discussed including wading and floating moving water as well as a variety of both hard and inflatable boats. Emphasis will be placed on the presentation of the fly, successfully striking the fish, and catch and release techniques. Other topics directly related to the business of fly fishing such as risk management, etiquette, permitting and type of related careers will be discussed.

OUT 2510 Rock Climbing II
(Previously OUT 132 Rock Climbing II)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1510
Introduces lead climbing skills and techniques, problem solving skills and physical fitness. Emphasizes the general principles of lead climbing; proper usage of climbing equipment; development of lead climbing skills and techniques; climbing ethics and safety; and terminology.

OUT 2560 Caving II
(Previously OUT 111 Caving II)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1560
Introduces the student to the advanced science of speleology, with an in-depth study of the geology, biology, and hydrology of caves. Teaches the student advanced caving techniques with an emphasis on safety, and reviews advanced caving equipment.

Paralegal Courses

PAR 1114 Computers & the Law
(Previously PAR 114 Computers & the Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides students with an opportunity to develop computer skills needed in the legal environment, including software applications, spreadsheets, databases, and Internet research.

PAR 1115 Introduction to Law
(Previously PAR 115 Introduction to Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the United States (U.S.) legal system, legal terminology and concepts, and a variety of substantive areas of law. This course covers the role of paralegals and issues facing paralegals within the U.S. legal system.

PAR 1116 Torts
(Previously PAR 116 Torts)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Focuses on tort law, including negligence, intentional torts, and strict liability.

PAR 1117 Family Law
(Previously PAR 117 Family Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Emphasizes domestic relations law, including formation of marriage, dissolution of marriage and legal separation, child custody and support, adoption, and other family law issues.

PAR 1118 Contracts
(Previously PAR 118 Contracts)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
This course covers the basic principles of contract law.

PAR 1125 Property Law
(Previously PAR 125 Property Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Focuses on real estate law, ownership, sale, leasing, financing, and government regulation of land.

PAR 1127 Legal Ethics
(Previously PAR 127 Legal Ethics)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Explores the parameters of professional responsibilities and value systems for paralegals and related occupations.

PAR 2080 Internship
(Previously PAR 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Prerequisite: PAR 1115, PAR 2201
Note: Must have faculty consent to enroll
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.

PAR 2087 Cooperative Education
(Previously PAR 287 Cooperative Education)
3 Credit Hours • 135 Contact Hours (On-the-Job-Training)
Prerequisite: PAR 1115
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 will work with the student to select an appropriate work site, establish learning objectives, and to coordinate learning activities with the employer or work site supervisor.

PAR 2201 Civil Litigation
(Previously PAR 201 Civil Litigation)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Presents fundamental concepts and procedures of civil litigation, including the Federal Rules of Civil Procedure and the Colorado Rules of Civil Procedure. This course explores the paralegal's role in civil litigation.

PAR 2202 Evidence
(Previously PAR 202 Evidence)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Introduces the state and federal Rules of Evidence and application within the trial process.

PAR 2205 Criminal Law
(Previously PAR 205 Criminal Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Introduces basic concepts of criminal law and criminal procedure, including federal laws, Colorado statutes and Rules of Procedure.

PAR 2206 Business Organization Law
(Previously PAR 206 Business Organizations)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Emphasizes the federal, state, and local laws impacting business organizations. This course focuses on the creation, maintenance, and dissolution of the major types of business organizations.

PAR 2208 Probate & Estates
(Previously PAR 208 Probate & Estates)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Provides an understanding of the creation and administration of an estate, including wills and trusts, and the probate process.

PAR 2209 Constitutional Law
(Previously PAR 209 Constitutional Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Explores the powers of the federal and state governments and the three branches of the federal government, as allocated and defined by the United States Constitution. This course also examines the individual freedoms and protections outlined in the U.S. Constitution.

PAR 2213 Legal Research & Writing I
(Previously PAR 213 Legal Research & Writing I)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: ENG 1021, PAR 1115
Provides an introduction to legal research and writing.

Park Ranger Course

PRA 2005 Resource Interpretation
(Previously PRA 205 Resource Interpretation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides a basic course in natural and cultural resource interpretation. Examines the philosophy, techniques, and skills necessary to produce exciting and relevant resource interpretation projects. Incorporates interpretive plans and various techniques used in the field of resource interpretation and public education. Covers the history and development of environmental education and natural/cultural resource interpretation. Multi-use conflict resolution of public education and resource interpretation are emphasized.

PRA 2018 Outdoor Leadership
(Previously PRA 2018 Outdoor Leadership)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Enables the student to develop, acquire and apply outdoor leadership skills and knowledge. Exposes students to the latest information, philosophy, and techniques necessary to safely conduct outdoor programs and expeditions as an outdoor leader. Skills are applied under actual field conditions. Emphasizes minimum impact camping, wilderness ecology, judgment, decision making, group dynamics, and trip logistics. These skills enhance the effectiveness of the student as a professional outdoor leader.

Pharmacy Technician Courses

PHT 1011 Introduction to Pharmacy
(Previously PHT 111 Introduction to Pharmacy)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Introduces the student to the practice of pharmacy and the work that pharmacy technicians perform. The course provides an overview of careers within the field; educational, certification and accreditation requirements; ethical and legal responsibilities; pharmacology; as well as a variety of issues that touch on attitudes, values and beliefs of successful pharmacy technicians.

PHT 1012 Pharmacy Law & Ethics
(Previously PHT 112 Pharmacy Law & Ethics)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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 1014 Computer Skills for Pharmacy Technicians
(Previously PHT 114 Computer Skills for Pharmacy Technicians)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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 and allow students hands on technical experience.

PHT 1015 Pharmacology I
(Previously PHT 115 Pharmacology I)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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 1016 Pharmacology II
(Previously PHT 118 Pharmacology II)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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 1035 Pharmaceutical Calculations & Compounding Techniques
(Previously PHT 235 Pharmaceutical Calculations & Compounding Techniques)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in Quantitative Literacy Math
Note: Must have faculty consent to enroll
Develops the skills necessary to perform calculations essential to the duties of pharmacy technicians in a variety of contemporary settings. This course also applies these skills in hands-on compounding of pharmaceutical products emphasizing the importance of accuracy, quality and infection control.

PHT 1040 Institutional Pharmacy
(Previously PHT 116 Institutional Pharmacy)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Note: PHT 1035 recommended, but not required
Explores the role of pharmacy technicians and the practice of pharmacy in the institutional setting. This course covers institutional and pharmacy organization, terminology, medication distribution systems, packaging, and preparation of intravenous admixtures. This course includes a hands-on simulation component in preparation for institutional practice.

PHT 1041 Community Pharmacy
(Previously PHT 119 Community Pharmacy)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Note: PHT 1035 recommended
Explores the role of pharmacy technicians and the practice of pharmacy in the community and other outpatient pharmacy settings. This course covers community pharmacy organization, workflow, terminology, inventory management, third-party billing, and packaging and preparation of prescriptions for out-patient dispensing. This course includes a hands-on simulation component in preparation for community pharmacy practice.

PHT 1070 Clinical:
(Previously PHT 170 Pharmacy Clinical: Institutional)
4 Credit Hours • 180 Contact Hours (Internship)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Offers the clinical practicum required for the program.

PHT 1071 Clinical:
(Previously PHT 171 Pharmacy Clinical: Community)
4 Credit Hours • 180 Contact Hours (Internship)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Offers the clinical practicum required for the program.

PHT 2050 Sterile Compounding & Aseptic Technique
(Previously PHT 250 Sterile Compounding & Aseptic Technique)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: PHT 1040
Note: Instructor Signature Required
Provides overview of methods and regulation of sterile products as well as instruction and training for the mastery of aseptic technique and the successful production of sterile preparations. This course prepares students for passing process validation checklists and provides comprehensive coverage of all procedures and techniques related to the skill sets necessary for sterile compounding.

PHT 2055 Advanced Pharmacy Practice & Nontraditional Roles
(Previously PHT 255 Advanced Pharmacy Practice & Nontraditional Roles)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Note: Instructor Signature Required
Compares nontraditional roles and responsibilities for pharmacy technicians. Course will compare career opportunities for pharmacy professionals as pharmacy practice expands into many new areas.

PHT 2080 Internship
(Previously PHT 280 Internship)
1 Credit Hour • 45 Contact Hours (Internship)
Note: Instructor Signature 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.

Philosophy Courses

Philosophy courses can be taken in any order.

PHI 1011 Introduction to Philosophy: AH3
(Previously PHI 111 Introduction to Philosophy: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces significant theoretical and practical questions and emphasizes understanding the meaning and methods of philosophy. Includes: the human condition, logic, reality, knowledge, freedom, history, ethics, and religion.

PHI 1012 Ethics: AH3
(Previously PHI 112 Ethics: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines human life, experience, and thought to discover and develop the principles and values for pursuing a more fulfilled existence. This course examines ethical theories designed to both justify moral judgments, as well as apply these ethical theories to a selection of personal and social issues in the world today.

PHI 1013 Logic: AH3
(Previously PHI 113 Logic: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking and the formal analysis of arguments. Emphasizes the development of decision-making and problem-solving.

PHI 1014 Comparative Religions: AH3
(Previously PHI 114 Comparative Religions: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the major religions of the Eastern and Western world. Covers Hinduism, Buddhism, Confucianism, Daoism, Judaism, Christianity, and Islam. Utilizes methods of religious studies to understand the historical development of each religious tradition as well its worldview and teachings.

PHI 1015 World Religions – West: AH3
(Previously PHI 115 World Religions – West: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to religions of the Western world: Judaism, Christianity, and Islam. Utilizes the methods of religious studies 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.

PHI 1016 World Religions – East: AH3
(Previously PHI 116 World Religions – East: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the major religions of the Eastern world: Hinduism, Buddhism, Confucianism and Daoism. Utilizes the methods of religious studies 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.

PHI 1042 New Testament: AH2
(Previously PHI 142 New Testament)
3 Credit Hours • 45 Contact Hours (Lecture)
This course surveys the literature of the early Christian era, from its inception to approximately 150 C.E. The New Testament as well as selected non-canonical writings from the period are examined. The course focuses on the interpretation of these texts in light of the cultural milieu from which they arose. Particular attention is paid to the influence of ancient literary conventions upon the Christian writers of this time.

PHI 2001 Social & Political Philosophy
(Previously PHI 201 Social & Political Philosophy)
3 Credit Hours • 45 Contact Hours (Lecture)
Addresses a single topic among those relevant to social and political philosophy such as political rights, political freedom, social obligations, or democracy.

PHI 2005 Business Ethics: AH3
(Previously PHI 205 Business Ethics: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines major ethical theories and then applies ethical decision-making criteria to various moral issues and challenges in a business environment. This course will include issues such as job discrimination, worker's rights, consumerism, advertising, whistleblowing, product safety, responsibility to the environment, as well as compassionate and fair responsibility to society.

PHI 2014 Philosophy of Religion: AH3
(Previously PHI 214 Philosophy of Religion: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the critical analysis and evaluation of the fundamental concepts, ideas, and implications within religious worldviews. This course includes issues such as the nature of God, other conceptions of ultimate reality, arguments concerning God`s existence, the problem of evil and suffering, faith and reason, metaphysical foundations for ethics, the phenomenon of religious experience, and religious diversity.

PHI 2018 Environmental Ethics: AH3
(Previously PHI 218 Environmental Ethics: AH3)
3 Credit Hours • 45 Contact Hours (Lecture)
Analyzes theories of the value of the natural world. Topics may 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 to nature; and the connection between moral and political values and economic policies.

PHI 2050 Eastern Wisdom
(Previously PHI 250 Eastern Wisdom)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers fundamental theories of Indian, Chinese, Japanese, and Muslim metaphysics, epistemology, ethics, and aesthetics, focusing on the development of Hinduism, Buddhism, Confucianism, Taoism, Shintoism, as well as Islam's development in the East.

Photography Courses

PHO 1001 Professional Photography I
(Previously PHO 101 Professional Photography I)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces black and white photography as a fine art medium and develops skills necessary for basic camera and lab operations.

PHO 1005 Photo & Computer Orientation
(Previously PHO 105 Photo & Computer Orientation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
This course will orient the Professional Photography student with lab operations and procedures of computer labs and networks. Instruction of the numerous applications included with Mac OS-X including Safari, iTunes, iPhoto, iDVD, iMovie, disc burner, Adobe Acrobat Reader, word processing and spreadsheet applications will be covered.

PHO 1020 Fundamentals of Photography
(Previously PHO 120 Fundamentals of Photography)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to photography through a combination of lectures, demonstrations, assignments, and critiques. Students will learn to see photographically via an exploration of the basic tools, techniques, and aesthetics of photography, with an emphasis on the creative use of camera controls, exposure, an overview of film and digital processing, and an awareness of the critical issues in contemporary photography.

PHO 1043 Perception & Photography I
(Previously PHO 143 Perception & Photography I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PHO 1020
This course presents the fundamentals of visual perception, design, and seeing in the photographic medium. Topics include elements of composition, Gestalt principles and the psychology of seeing, conceptual and perceptual exercises, depth representation, figure/ground, and the development of ideas.

PHO 2005 Professional Digital Photo I
(Previously PHO 205 Professional Digital Photo I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces the basic concepts of digital imaging as applied to photography. Using applicable technology and hands on

experience, modern developments are presented leading to the present applications of digital imaging which combine traditional photographic ideas with electronic media. Enables the student to learn how to operate image manipulation software using a variety of scanning equipment, software tools and output devices by executing new assignments and applying these technologies to their photographic process.

PHO 2006 Professional Digital Photo II
(Previously PHO 206 Professional Digital Photo II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PHO 2005
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.

PHO 2026 Digital Workflow Management
(Previously PHO 226 Digital Workflow Management)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: It is recommended to take MGD 1011 before PHO 2026
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.

PHO 2032 Professional Portraiture
(Previously PHO 232 Professional Portraiture)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PHO 2037
This course covers the technical and aesthetic aspects of studio and location portrait photography. Course topics include lighting ratios, lighting styles, location lighting, small system flash, light modifiers for portraiture, metering, composition, equipment and posing. Career paths in the field of portraiture such as weddings, environmental, editorial and studio portraits are covered.

PHO 2034 View Camera/Lighting Technique
(Previously PHO 234 View Camera/Lighting Technique)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ART 1041 or PHO 1020
Instruction in the use of large format cameras and strobe lighting for product photography is the focus of this course. Topics include types of large format cameras, view camera movements for depth of field and perspective control, lighting ratios, special lighting techniques, light modifiers, bellows factors, and the specific methods of lighting different objects and surfaces such as glass and metal.

PHO 2035 Architectural Photography
(Previously PHO 235 Architectural Photography)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PHO 2037
Covers the more advanced aspects of commercial/ architectural photography. Students will explore photographing subjects ranging from products to buildings with an emphasis on meeting the design demands of commercial clients, stock agencies and publishers. Various film types, formats and print reproduction aspects will be explored in depth.

PHO 2036 Product Photography
(Previously PHO 236 Product Photography)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PHO 2034
Continues techniques from Large Format & Lighting (PHO 2034), emphasizing studio product illustration using color transparency film and digital capture. Advanced techniques in lighting, further

development of proficiency with the view camera, and advanced aspects of commercial illustration photography are included.

PHO 2037 Advanced Lighting Technique
(Previously PHO 237 Advanced Lighting Technique)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Emphasizes advanced lighting techniques for studio and location situations. Use of power pack, mono-block and small system strobe lighting will be emphasized. Controlling lighting conditions in mixed light situations for a variety of photographic fields including commercial, editorial, advertorial, portrait and events is covered.

PHO 2052 Glamour & Fashion Photography
(Previously PHO 233 Glamour & Fashion Photography)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces students to the technical and aesthetic aspects of studio and location portrait photography in the areas of glamour, beauty, and fashion photography. Course topics include strobe lighting, lighting styles, studio and location lighting, past and current trends in the industry, creativity and posing. Career paths in the field of glamour, beauty and fashion photography are also covered.

PHO 2058 Wildlife Photography
(Previously PHO 258 Wildlife Photography)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
This course introduces and refines specific tools and techniques involved in the taking of successful and professional wildlife photographs. This class exposes students to an awareness of the outdoors, with a specific interest in wildlife through a lecture and various class field trips. Students are expected to have a good knowledge of basic photographic concepts, such as technical camera skills and creative composition before entering this class.

PHO 2060 Events & Wedding Photography
(Previously PHO 260 Events & Wedding Photography)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ART 2405, PHO 2026
Presents skills for the intermediate/advanced photo student interested in learning the professional techniques associated with events (venue) and wedding photography. There will be an emphasis on advanced camera and flash techniques, candid, formal and ceremonial photography. Business and planning aspects will also be covered. Topics covered will include Weddings, Bar mitzvah/Bas mitzvah, Music Concerts, Sporting Events, Graduations, and similar occasions. Students will gain hands-on knowledge and learn practical shooting skills.

PHO 2063 Digital Capture Processing III
(Previously PHO 263 Digital Capture Processing III)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PHO 2005, PHO 2026
This course will introduce advanced techniques in post-processing of digital captures. Various workflows for different photographic professions will be emphasized in this class. Image management with special software designed for the professional photographer is also included. Refinement of printing techniques and an introduction to theories of color management will also be covered.

PHO 2066 Pro Digital Workflow: Software
(Previously PHO 266 Pro Digital Workflow: Software)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: ART 1401 or PHO 1020
Concentrates on developing a seamless professional workflow for digital photography, integrating all aspects of digital photography, including shooting Camera RAW in the field, conversion of files to digital negatives, color calibration, importing, sorting, and developing images, to final print output. Students will understand

the workflow associated with importing, processing, managing, and showcasing large volumes of digital photographs. This includes the use of libraries for importing and managing photos, fundamental photographic adjustments and batch processing of photographs, and using additional tools to present photos onscreen, online, or in print.

PHO 2080 Internship
(Previously PHO 280 Internship)
1 Credit Hour • 45 Contact Hours (Internship)
Provides students with the opportunity to supplement course work 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/coordinator.

PHO 2081 Internship
(Previously PHO 281 Internship)
1 Credit Hour • 45 Contact Hours (Internship)
Provides students with the opportunity to supplement course work 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/coordinator.

PHO 2187 Business of Photography
(Previously PHO 269 Business of Photography)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: PHO 1020
Creates a foundation for freelance work, business practices, procedures, and models unique to a career in photography. Course topics include determining price structures, examining varying forms of photography based on students' career plans, equipment and studio needs, business forms, business planning, tax structure, licenses and registration, and self-promotion. The course may include visits by professionals in the field and discussion of career opportunities.

PHO 2188 Portfolio & Career Exploration
(Previously PHO 268 Portfolio & Career Exploration)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: PHO 2187 or concurrent enrollment
Focuses on the creation of professional visual portfolio(s) and promotional pieces with techniques, styles, and formats appropriate for a photographic career.

Physical Education Courses

PED 1000 Fitness Concepts
(Previously PED 100 Fitness Concepts)
1 Credit Hour • 30 Contact Hours (Physical Education)
Focuses on providing information and guidelines for moving toward a more healthy lifestyle. Includes classroom instruction, an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program utilizing the equipment and exercise options available in the Fitness Center.

PED 1002 Weight Training I
(Previously PED 102 Weight Training I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Offers basic instruction and practice in weight training. Students utilize weight training equipment in accordance to their abilities and goals. Emphasizes weight training equipment orientation, correct lifting techniques, and basic program design for men and women.

PED 1003 Weight Training II
(Previously PED 103 Weight Training II)
2 Credit Hours • 60 Contact Hours (Physical Education)
Offers guided instruction and independent practice in weight training for men and women. Students practice various weight training techniques in accordance with their abilities. Emphasizes physiological considerations, equipment orientation, correct lifting techniques, program design, and nutrition.

PED 1010 Fitness Center Activity I
(Previously PED 110 Fitness Center Activity I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Focuses on improving total fitness via an aerobic circuit training program. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Covers the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition. Weight machines, stationary bicycles, and computerized cardiovascular equipment will be used to elicit improvements in fitness.

PED 1011 Fitness Center Activity II
(Previously PED 111 Fitness Center Activity II)
1 Credit Hour • 30 Contact Hours (Physical Education)
Serves as an advanced course for individuals interested in reaching a higher level of total fitness via an aerobic circuit training program. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Focuses on the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition will be addressed. Weight machines, stationary bicycles, and computerized cardiovascular equipment will be used to elicit improvements in fitness.

PED 1012 Fitness Center Activity III
(Previously PED 112 Fitness Center Activity III)
1 Credit Hour • 30 Contact Hours (Physical Education)
Serves as an advanced exercise course designed for individuals interested in attaining a high level of total fitness. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Focuses on the basic components of fitness including flexibility, muscular strength and endurance, cardiovascular fitness, and body composition. The primary mode of training will be Aerobic Circuit Training. The circuit training is supplemented with additional work on the specialized weight machines, dumbbells, treadmills, rowers, stair climbers, cross trainers, Nordic track, versa climbers, and running track available in the Fitness Center.

PED 1013 Fitness Center Activity IV
(Previously PED 113 Fitness Center Activity IV)
1 Credit Hour • 30 Contact Hours (Physical Education)
Focuses on advanced instruction designed for individuals interested in attaining a high level of total fitness. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Focuses on the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition. The primary mode of training will be Aerobic Circuit Training. The circuit training will be supplemented with additional work on the specialized weight machines, dumbbells, treadmills, rowers, stair climbers, cross trainers, Nordic track, versa climbers, and running track found in the Fitness Center.

PED 1022 Step Aerobics
(Previously PED 122 Step Aerobics)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces basic step aerobics, exercise techniques to improve physical fitness. Emphasizes the basic principles of step aerobics including the effects upon the cardio-respiratory system and skeletal muscles, various step patterns, and choreography.

PED 1026 Cardio Kickboxing Aerobic I
(Previously PED 126 Cardio Kickboxing Aerobic I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces aerobic kickboxing as an innovative new interval training aerobics workout that burns fat and increases cardiorespiratory endurance. This high intensity course will focus on basic kickboxing moves and technique through hi-low aerobics choreography and target striking. The course will also include floor work to focus on toning and flexibility.

PED 1029 Zumba
(Previously PED 129 Zumba)
1 Credit Hour • 30 Contact Hours (Physical Education)
Zumba is a compilation of high energy, motivating music with unique moves and choreography combinations. Zumba fuses Latin and International music and dance themes to create a dynamic, exciting, effective fitness system. The routines feature aerobic/fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body. Zumba utilizes the principles of fitness interval training and resistance training to maximize caloric output, fat burning and total body toning. It is a mixture of body sculpting movements with easy to follow dance steps.

PED 1040 Body Sculpting & Toning
(Previously PED 140 Body Sculpting & Toning)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces exercise techniques to improve overall physical fitness. Emphasizes the interaction between cardiovascular conditioning, muscular strength and endurance, flexibility, and program design integrated into an aerobic format. Focuses on blending together different combinations and sequences of exercises while conditioning the entire body. Students exercise using various types of resistance equipment.

PED 1041 Pilates Matwork I
(Previously PED 141 Pilates Matwork I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Focuses on Pilates matwork to increase core strength, overall muscles tone and flexibility with focused and precise floor work techniques. A physical education class built upon the philosophies and exercises of Josef Pilates.

PED 1042 Pilates Matwork II
(Previously PED 142 Pilates Matwork II)
1 Credit Hour • 30 Contact Hours (Physical Education)
Builds upon the philosophies and exercises of Joseph Pilates. Pilates Matwork is a prerequisite, as this course builds upon basic techniques learned therein. Core strength, flexibility, overall muscle tone and balance are the goals of the matwork.

PED 1043 Yoga I
(Previously PED 143 Yoga I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces the history and philosophy of yoga, fundamental principles of alignment, breath work, and meditation through guided practice. Course focuses on demonstrating safety and stability within each pose.

PED 1044 Yoga II
(Previously PED 144 Yoga II)
1 Credit Hour • 30 Contact Hours (Physical Education)
Builds on the concepts of basic yoga. This course emphasizes cultivating discernment, awareness, self-regulation, and higher consciousness in the individual.

PED 1051 Walking & Jogging
(Previously PED 151 Walking & Jogging)
1 Credit Hour • 30 Contact Hours (Physical Education)
Enables the student to understand the values in walking and jogging. Safety precautions and emphasis on personal programs are emphasized.

PED 1061 Tai Chi I
(Previously PED 161 Tai Chi I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces Tai Chi as an expression of understanding of self-control, exercise, and self-defense. The primary emphasis is to gain an understanding of the history (origins and changes) of Tai Chi, the movements and their names, application of movements and terminology.

PED 1062 Tai Chi II
(Previously PED 162 Tai Chi II)
1 Credit Hour • 30 Contact Hours (Physical Education)
Emphasizes the instruction of Tai-Chi from a practical and scientific approach with illustrations of applications for each of the movements in daily life. Cardiovascular training, strength and flexibility training, balance and coordination are integral parts of the Tai-Chi training. In addition, psychosocial skills such as meditation, relaxation, and self-efficacy will be addressed.

PED 1063 Martial Arts I
(Previously PED 163 Martial Arts I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces basic martial arts techniques and forms designed to improve the physical and mental capacity of an individual. Enables the student to gain an understanding of the basic philosophies and concepts around the martial arts and the approach to ethics. Provides a clear-cut guide for developing a powerful sense of character and will.

PED 1064 Martial Arts II
(Previously PED 164 Martial Arts II)
1 Credit Hour • 30 Contact Hours (Physical Education)
Presents an empty-hand form of self-defense using all parts of the body in various blacking, kicking, punching, and striking techniques against one or more assailants. The style of Karate taught will be Tae Kwon Do. Based on the results of an initial skills test, each student will be assigned two additional kicks, one additional jump kick, and one pattern. Intermediate sparring and self-defense techniques will be taught. Each student will be assigned a goal that they will strive to achieve by the end of the course.

PED 2030 Volleyball I
(Previously PED 230 Volleyball I)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces and improve student skill level in volleyball. The primary emphasis is on teaching the student the elements of volleyball including rules, offensive and defensive play, passing, serving, setting, attacking, team play and game strategies.

PED 2031 Volleyball II
(Previously PED 231 Volleyball II)
1 Credit Hour • 30 Contact Hours (Physical Education)
Introduces and improves students advanced skills in volleyball. The primary emphasis is on teaching students' quick offensives

and advanced defensive systems in order to play volleyball at a competitive level.

PED 2058 Law Enforcement Academy Physical Training I
1 Credit Hour • 30 Contact Hours (Lab)
Introduces the health and fitness skills critical for a career in law enforcement. This course covers stress management, chronic diseases, and physical fitness training relevant to the Law Enforcement Academy.

PED 2059 Law Enforcement Academy Physical Training II
1 Credit Hour • 30 Contact Hours (Lab)
Continues the overall wellness and fitness skill critical for a career in law enforcement. This course covers nutrition, weight management, and physical fitness training specific to the Law Enforcement Academy.

Physical Therapist Assistant Courses

PTA 1010 Basic Patient Care in Physical Therapy
(Previously PTA 110 Basic Patient Care in Physical Therapy)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Note: Admission to the Physical Therapy Assistant Program or Department Chair approval
Examines the basic patient care skills for the healthcare practitioner enabling understanding and demonstration of skills that include positioning, body mechanics, transfers, range of motion, palpation, vital signs, aseptic techniques, bandaging, medical terminology, activities of daily living (ADLs), wheelchair management, architectural barriers, and gait training.

PTA 1015 Principles & Practices of Physical Therapy
(Previously PTA 115 Principles & Practices of Physical Therapy)
2 Credit Hours • 30 Contact Hours (Lecture)
Explores the history of the profession including definition, development, and areas of practice. The role of the American Physical Therapy Association (APTA), the physical therapist assistant (PTA) and the relationship between the physical therapist (PT), PTA and other health care professionals are investigated. This course covers current issues and trends including professionalism, legal aspects, ethics, quality assurance, communications, and reimbursement issues such as Medicare, Medicaid, Worker's Compensation, and commercial insurance.

PTA 1020 Modalities in Physical Therapy
(Previously PTA 120 Modalities in Physical Therapy)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PTA 1010
Examines the theory and principles of physical therapy modalities. This course includes therapeutic heat and cold, traction, hydrotherapy, and light therapies.

PTA 1024 Rehab Principles of Medical I
(Previously PTA 124 Rehab Principles of Medical I)
2 Credit Hours • 30 Contact Hours (Lecture)
Investigates the functioning, disability and health associated with a variety of genetic, developmental and neuromusculoskeletal conditions. The course covers medical management including pharmacology, and its impact on physical therapy rehabilitation principles are discussed. The course investigates evidence-based practice for genetic, developmental, musculoskeletal, and neurological system diagnosis, as well as common medical and surgical conditions, will be reviewed as they relate to physical therapy rehabilitation.

PTA 1031 Professional Communications I
(Previously PTA 131 Professional Communications I)
1 Credit Hour • 15 Contact Hours (Lecture)
Note: Permission of the Physical Therapy Assistant Chair required
Introduces oral and written professional communication in the physical therapy field. This course develops skills in verbal and non-verbal communication, performance evaluation, literature research, and presentation, use of editorial style and technology, and development of professional behaviors.

PTA 1034 Rehabilitation Principles of Medical Management II
(Previously PTA 134 Rehab Principles of Medical II)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Investigates the functioning, disabilities and health associated with a variety of pathophysiological processes and conditions. Medical management, including pharmacology, and its impact on physical therapy rehab principles are discussed. Evidence based practice for cardiovascular, endocrine/metabolic, gastrointestinal, genital/reproductive, hematologic, immune, integumentary, hepatic/biliary, lymphatic, and respiratory system diagnoses as well as chronic pain diagnoses and common medical and surgical conditions will be reviewed as they relate to physical therapy rehab.

PTA 1035 Principles of Electrical Stimulation
(Previously PTA 135 Principles of Electrical Stimulation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: PTA 1010
Explores the principles and application of electrical stimulation (ES) modalities currently used in physical therapy practice. This course enables the understanding of the electrochemical and physiological effects of electrical stimulation and identification of the various forms and applications of electrical stimulation modalities.

PTA 1040 Clinical Kinesiology
(Previously PTA 140 Clinical Kinesiology)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: HPR 1017 and admission to the Physical Therapy Assistant Program
Focuses on the science of human motion, theories of biomechanics and muscle and joint structure and function. This course emphasizes basic principles of therapeutic exercise and their application to specific body regions and includes the application of kinesiology and exercise principles.

PTA 1041 Professional Communications II
(Previously PTA 141 Professional Communications II)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: PTA 1031
Explores medical documentation of patient care as used in the profession of physical therapy throughout multiple practice settings. This course develops physical therapy documentation skills that use standardized formats and meet requirements of various payer sources and settings.

PTA 2005 Psychosocial Issues in Health Care
(Previously PTA 205 Psychosocial Issues in Health Care)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: PTA 2080
Explores the psychosocial aspects of the patient and or 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 enabling the development of skills necessary to meet expectations and needs of members of society receiving health care services.

PTA 2030 Orthopedic Assessment & Management
(Previously PTA 230 Orthopedic Assessment & Management Techniques)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PTA 1020, PTA 1040
Examines the theory, principles, and practices of orthopedic conditions. This course includes assessment and management techniques pertaining to orthopedic conditions, goniometry, manual muscle testing, gait analysis, and posture analysis.

PTA 2040 Neurologic Assessment & Management Techniques
(Previously PTA 240 Neurologic Assessment & Management Techniques)
5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: PTA 1020, PTA 1040
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 2051 Professional Communications III
(Previously PTA 251 Professional Communications III)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: PTA 1041
Advances development and application of the written and oral communication skills utilized in healthcare and physical therapy workplace settings.

PTA 2078 PTA Seminar
(Previously PTA 278 PTA Seminar)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: PTA 2030, PTA 2080
Note: Students should be in the final semester of their degree
Provides students with an experiential learning opportunity.

PTA 2080 Internship I
(Previously PTA 280 Internship I)
4 Credit Hours • 180 Contact Hours (Internship)
Prerequisite: PTA 1020, PTA 1040
Focuses on an 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 provides supervision.

PTA 2081 PTA Internship II
(Previously PTA 281 PTA Internship II)
5 Credit Hours • 225 Contact Hours (Internship)
Prerequisite: PTA 2030, PTA 2080
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 2082 PTA Internship III
(Previously PTA 282 PTA Internship III)
5 Credit Hours • 225 Contact Hours (Internship)
Prerequisite: PTA 2040, PTA 2081
Incorporates advanced clinical experience providing hands on patient practicum skills and techniques. Students 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 presents an in-service on a physical therapy related topic.

Physics Courses

PHY 1105 Conceptual Physics with Lab: SC1
(Previously PHY 105 Conceptual Physics with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English and Quantitative Literacy Math
Focuses on mechanics, heat, properties of matter, electricity and magnetism, and light. Incorporates laboratory experience.

PHY 1111 Physics: Algebra-Based I with Lab: SC1
(Previously PHY 111 Physics: Algebra-Based I with Lab: SC1)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: MAT 1340
Covers the physics of mechanics and requires application of classical physics to both mathematical and conceptual problems. Major topics include kinematics in one and two dimensions, Newton's Laws, circular motion, work and energy, impulse and momentum, and rotational mechanics. This course may also include topics relating to simple harmonic motion and traveling and standing waves.

PHY 1112 Physics: Algebra-Based II with Lab: SC1
(Previously PHY 112 Physics: Algebra-Based II with Lab: SC1)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: PHY 1111
Covers the physics of electricity and magnetism and requires application of classical physics to both mathematical and conceptual problems. DC circuits involving resistors, capacitors, and batteries will be covered. Also covered are electromagnetic waves and geometric optics. This course may also include topics relating to simple harmonic motion, traveling, and standing waves, and AC circuits.

PHY 2111 Physics: Calculus-Based I with Lab: SC1
(Previously PHY 211 Physics: Calculus-Based I with Lab: SC1)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: MAT 2410
Covers the physics of kinematics, dynamics, and conservation laws and requires application of classical physics to both mathematical and conceptual problems. Specific concepts covered include 1D and 2D kinematics, Newton's Laws, rotational motion, energy and work, momentum and impulse, and simple harmonic motion. This course may also cover thermodynamics and fluid mechanics.

PHY 2112 Physics: Calculus-Based II with Lab: SC1
(Previously PHY 212 Physics: Calculus-Based II with Lab: SC1)
5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)
Prerequisite: PHY 2111
Covers the physics of electricity and magnetism using conceptual and mathematical reasoning, including calculus. Maxwell's equations, waves, and time-varying circuits will be covered. Optional topics include wave and geometric optics and AC circuits.

PHY 2113 Physics III: Calculus Based Modern Physics
(Previously PHY 213 Physics III: Calculus Based Modern Physics)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: PHY 2112
Expands upon PHY 2112 and explores twentieth century advances in physics. Topics may include special and general relativity, quantum theory, atomic physics, solid state physics, nuclear physics, semiconductor physics and cosmology.

Plumbing Courses

PLU 2007 International Plumbing Code
(Previously PLU 207 International Plumbing Code)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Helps those plumbers working in jurisdictions where the International Plumbing Coded has been adopted. This course will review the IPC and help the plumber apply the requirements of this code to the installation of plumbing systems.

PLU 2008 International Fuel Gas Code
(Previously PLU 208 International Fuel Gas Code)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Reviews the general requirements of applicable chapters of the IFGC. Students are given the opportunity to learn system sizing which includes fuel gas piping, gas appliance venting, and combustion air.

PLU 2050 Plumbing Estimating and Costing
(Previously PLU 250 Plumbing Estimating and Costing)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Reviews the information required to estimate and cost the installation of plumbing and fixtures. Topics include labor, material take-off, overhead costs and operating a profitable plumbing business.

Political Science Courses

PSC 1011 American Government: SS1
(Previously POS 111/POS 1011 American Government: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores the origins, development, structure, and functions of the American Constitution and national government. This course examines federalism, civil liberties, civil rights, electoral processes, and mechanisms of civic participation and influence.

PSC 1025 American State & Local Government: SS1
(Previously POS 125/POS 1025 American State & Local Government: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines 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.

PSC 1036 American Presidency
(Previously POS 136/POS 1036 American Presidency)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the office of the president as a branch of government. Examines the individuals who have occupied and shaped the presidency, and changes in the office itself.

PSC 1050 Current Political Issues: SS1
(Previously POS 215/POS 1050 Current Political Issues: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Incorporates an in-depth analysis of the background and nature of political issues and themes.

PSC 2005 International Relations: SS1
(Previously POS 205/POS 2005 International Relations: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the interactions among various levels of actors in the international system. This course attempts to explain behaviors across state boundaries.

PSC 2020 Introduction to Political Science: SS1
(Previously POS 105/POS 2020 Introduction to Political Science: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and non-democratic governments and processes, and international relations.

PSC 2025 Comparative Government: SS1
(Previously POS 225/POS 2025 Comparative Government: SS1)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines domestic political systems, developments, themes, and events across countries and regions while applying the comparative method to identify similarities and differences.

PSC 2080 Internship
(Previously POS 280/POS 2080 Internship)
1-6 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
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.

Psychology Courses

PSY 1001 General Psychology I: SS3
(Previously PSY 101 General Psychology I: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning, and memory.

PSY 1002 General Psychology II: SS3
(Previously PSY 102 General Psychology II: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, life span development, sex, gender, sexuality, and social psychology.

PSY 1005 Psychology of Workplace Relationships
(Previously PSY 100 Psychology of Workplace Relationships)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on interactions among people including their conflicts, cooperative efforts, and group relationships. This course examines why beliefs, attitudes, and behaviors cause relationship problems in our personal lives and in work-related situations. Additionally, this course emphasizes the analysis of human behavior, the application of prevention strategies, and resolution of the behavior.

PSY 1016 Stress Management
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Identifies the physiological, emotional, and behavioral aspects of stress. Techniques of stress reduction and management are explored and applied, including nutrition, exercise, assertiveness, time management, and financial management.

PSY 2000 Research Methodology
(Previously PSY 200 Research Methodology)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: PSY 1001
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 2105 Psychology of Gender: SS3
(Previously PSY 205 Psychology of Gender: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines gender comparisons in work, courtship, family life, and sexual behavior throughout the life span.

PSY 2107 Human Sexuality: SS3
(Previously PSY 217 Human Sexuality: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Surveys physiological, psychological, and psychosocial aspects of human sexuality. Topics include relationships, sexual identity, and sexual health.

PSY 2220 Dynamics of Racism and Prejudice
(Previously PSY 250 Dynamics of Racism and Prejudice)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on early race relations in the United States, the development of prejudicial attitudes and the social impact, and strategies for positive change.

PSY 2221 Social Psychology: SS3
(Previously PSY 226 Social Psychology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on the behavior of humans in a wide variety of social settings and the social influences humans have on each other in those settings.

PSY 2222 The Psychology of Death & Dying: SS3
(Previously PSY 227 The Psychology of Death & Dying: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines philosophies of life and death emphasizing dying, death, mourning, and the consideration of one's own death.

PSY 2223 Environmental Psychology
(Previously PSY 150 Environmental Psychology)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Environmental Psychology is intended to provide an overview of basic terms and issues fundamental to the study of the molar effects of natural and built environments on human behavior and thinking. By the end of the term, successful students will be able to identify the main ways that environments are perceived and affect cognition, as well as specific effects of weather, climate, technological and natural disasters, toxic hazards, pollution, high density and crowding, and urban environments. Students will also improve their ability to clearly converse about planning and design for human behavior, the design of work, learning, and leisure environments, and obstacles to changing behavior to sustain the environment. Finally, students will practice effective APA-style on all written work and sharpen their skills in problem solving, critical thinking, written and spoken communication, and ethical evaluation.

PSY 2331 Positive Psychology: SS3
(Previously PSY 231 Positive Psychology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on human strengths and explores strengths-based research and concepts of life satisfaction, well-being, happiness, helpfulness, resiliency, post-traumatic growth, and improving emotional, psychological, and social functioning.

PSY 2332 Psychology of Adjustment
(Previously PSY 112 Psychology of Adjustment)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Emphasizes personal growth and the development of interpersonal skills. Focuses on the practical application of psychological principles and theories in achieving self-understanding and personal growth.

PSY 2333 Health Psychology: SS3
(Previously PSY 240 Health Psychology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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.

PSY 2440 Human Growth & Development: SS3
(Previously PSY 235 Human Growth & Development: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines human development from conception through death, emphasizing physical, cognitive, emotional, and psychosocial factors.

PSY 2441 Child Development: SS3
(Previously PSY 238 Child Development: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Focuses on the growth and development of the individual, from conception through childhood, emphasizing physical, cognitive, emotional, and psychosocial factors.

PSY 2551 Child Abuse & Neglect
(Previously PSY 247 Child Abuse & Neglect)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines the causes and effects of physical, sexual, and psychological abuse and neglect. This course emphasizes intervention and prevention strategies.

PSY 2552 Abnormal Psychology: SS3
(Previously PSY 249 Abnormal Psychology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines abnormal behavior and its classification, causes, treatment, and prevention.

PSY 2660 Introduction to Evolutionary Psychology
(Previously PSY 251 Introduction to Evolutionary Psychology)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Introduces the principles of natural selection and their application to the discipline of psychology and the study of human behavior. This course lays a framework for a biologically based approach to psychology and proposes a metatheory for the discipline. Current experimental data supporting the principles of evolution and their application in psychology will be examined.

PSY 2661 Brain & Behavior
(Previously PSY 255 Brain and Behavior)
3 Credit Hours ● 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Introduces the study of the relationship between brain and behavior. Modern research methods and ethics in the study of brain and behavior are examined. This course applies neuroanatomy and neurophysiology, related to human mental experience and behavior, are also considered. Applies

neuroscience concepts to understand and intervene in human behaviors and psychological disorders.

PSY 2662 Introduction to Neuropsychology
(Previously PSY 258 Introduction to Neuropsychology)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: PSY 1001 or PSY 1002
Focuses on introduction to basic neuropsychological terms and concepts with emphasis on application of thinking and behavior in humans.

PSY 2770 Introduction to Forensic Psychology
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Provides an overview of forensic psychology. This course explores both current research and practice in police psychology, criminal psychology, victimology, correctional psychology, and the interface of psychology and the courts. This course facilitates an understanding of the numerous careers related to forensic psychology and how to prepare for them.

PSY 2771 Psychology of Personality: SS3
(Previously PSY 265 Psychology of Personality: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines the structure, function, and development of personality. 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 study of psychology.

Public Security Management Courses

PSM 1030 Homeland Security Law
(Previously PSM 130 Homeland Security Law)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a comprehensive overview for business, industry, and government as well as those faced with the new legal and security issues raised by new public laws, the new regulatory framework, and a new Department of Homeland Security. A complete overview of homeland security laws and regulations; emerging public safety requirements and policies; current and evolving programs to protect water, food and air supplies; latest security challenges in air transportation, vessel and port operations, and chemical handling and storage; privacy rights-finding the right balance with security concerns; human resource issues-hiring, firing, monitoring, providing a safe workplace, and Department of Homeland Security: organizational structure and management priorities; developing the most effective and compliant security plans.

PSM 1032 Homeland Defense: Forecasting Terrorism
(Previously PSM 132 Homeland Defense: Forecasting Terrorism)
3 Credit Hours • 45 Contact Hours (Lecture)
Examines the variety of new indicators, warning methodologies, and analytical tools available to analysts; review of the extensive academic, governmental, and policy literature on terrorism forecasting that has been developed to assess and forecast terrorism in its numerous dimensions. Students will comprehend the various analytical capabilities of the types of terrorist threats that are most likely to confront the USA and its allies in the near future and predict how to develop proactive defenses for the long-term protection of our society.

PSM 1033 Homeland Security: Chemical & Biological Defense
(Previously PSM 133 Homeland Security: Chemical & Biological Defense)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an overview of the radiological, chemical, biochemical, and biological threat to Homeland Security. Analysis of the agents and means of dissemination or attack that an adversary nation, group, or terrorist cell may employ to deliver these agents; review the current and projected means, techniques, and procedures for defense against such agents; review of theory and practices in chemical and biological threats to develop proactive defensive postures to defeat these threats.

PSM 1035 Critical Infrastructure Protection
(Previously PSM 135 Critical Infrastructure Protection)
1 Credit Hour • 15 Contact Hours (Lecture)
Explores the facets of Critical Infrastructure protection. Provides the student with an interactive forum to develop protection strategies.

PSM 1036 Hospital Emergency Response Training (HERT) for Weapons of Mass Destruction (WMD)
(Previously PSM 136 Hospital Emergency Response Training (HERT) for Weapons of Mass Destruction (WMD))
3 Credit Hours • 45 Contact Hours (Lecture)
Provides Hospital Emergency Response Training (HERT) for Weapons of Mass Destruction (WMD). This course is designed to provide guidance to hospitals, EMS, health care facilities and citizens who may become involved in a mass casualty incident as a result of a hazardous materials incident (HMI) or weapons of mass destruction (WMD) event. The HERT/WMD introduces the hospital incident management system (HIMS), addresses chemical protective clothing and equipment (CPC&E) requirements, and presents guidance for hospital emergency response team (HERT) design, development, and training. This course prepares HERT to conduct safe and effective emergency response during mass casualty incidents (MCI).

PSM 1037 Introduction to Mitigation
(Previously PSM 137 Introduction to Mitigation)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides students with information and skills necessary to sustain actions to reduce or eliminate long-term risk to people and property from hazards and their effects.

PSM 2000 National Incident Management System/Interagency Operations
(Previously PSM 200 National Incident Management System/Interagency Operations)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores several components that work together as a system to provide a national framework for preparing for, preventing, responding to, and recovering from domestic incidents. These components include command and management, preparedness, resource management, communications and information management, supporting technologies, and ongoing management and maintenance.

Radio and Television Courses

RTV 1000 Introduction to Electronic Media
(Previously RTV 100 Introduction to Electronic Media)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the study of the market demands involving national, local, and international uses of electronic media.

RTV 1001 Radio Programming & Production I
(Previously RTV 101 Radio Programming & Production I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on radio programming, formats and audience rating surveys, basic and sophisticated communications systems, history of broadcasting, broadcasting and production equipment, and program broadcast systems and propaganda.

RTV 1002 Beginning Television
(Previously RTV 102 Beginning Television)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on principles and techniques of television production in theory and the approach of studio and field production. Emphasizes producing television programs, beginning with a concept through script to actual studio production, preproduction, and post production.

RTV 1003 Writing for Television & Radio
(Previously RTV 103 Writing for Television & Radio)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores writing techniques for television and radio emphasizing professional techniques, format, and style.

RTV 1004 Corporate Scriptwriting
(Previously RTV 104 Corporate Scriptwriting)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on scriptwriting formats and techniques as they apply to creating corporate and institutional video productions and other broadcast and non-broadcast television productions.

RTV 1005 Basic Video Production
(Previously RTV 208 Basic Video Production)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces basic videotape production and editing on linear and non-linear 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 non-linear editors.

RTV 1006 Principles of Audio
(Previously RTV 108 Principles of Audio)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1007 Automated Production Control I
3 Credit Hours ●45 Contact Hours (Lecture)
Provides operational training and preparation for utilization of an Automated Production Control (APC) system in a studio environment.

RTV 1008 News & Sports Writing & Reporting
(Previously RTV 120 News & Sports Writing & Reporting)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces students to the world of News and Sports writing, reporting, and production. Emphasizes gathering, writing, and reporting radio and television news and sports. Covers history, current trends, ethical issues, news and sports in print, radio, TV, and the Internet and the production of finished projects in both the mediums of TV and Radio.

RTV 1010 Fundamentals of Podcasting
3 Credit Hours ●67.5 Contact Hours (Lecture/Lab Combination)
Explores and evaluates existing podcasts on content, delivery, and production values, culminating in the creation and distribution of the first episode of an original podcast.

RTV 1011 Gaming, Vlogging, and Lifestyle Video Live Streaming
3 Credit Hours ●67.5 Contact Hours (Lecture/Lab Combination)
Focuses on the basic tenets of starting and maintaining a live stream, as well as ways to create original and engaging content to build and keep an audience.

RTV 1082 Internship – Radio Station/Audio Production Company
(Previously RTV 182 Internship – Radio Station/Audio Production Company)
4 Credit Hours • 180 Contact Hours (Internship)
Note: Must have faculty consent to enroll
Provides experience in a commercial radio station or an allied industry.

RTV 1083 Internship – Television Studio/Video Production Company
(Previously RTV 183 Internship – Television Studio/Video Production Company)
4 Credit Hours • 180 Contact Hours (Internship)
Note: Must have faculty consent to enroll
Provides experience in a commercial television station or an allied industry.

RTV 1180 Internship – KEPC Radio
(Previously RTV 180 Internship – KEPC Radio)
4 Credit Hours • 180 Contact Hours (Internship)
Incorporates on-the-air experience on the college FM radio station, KEPC.

RTV 1181 Internship – College ITV Studio
(Previously RTV 181 Internship – College ITV Studio)
4 Credit Hours • 180 Contact Hours (Internship)
Provides experience in a commercial television station or an allied industry.

RTV 1202 Television Studio Production
(Previously RTV 107 Television Studio Production)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Examines principles and techniques of basic television production and direction in a laboratory setting using commercial television broadcast equipment for broadcast and institutional video productions.

RTV 2001 Radio Programming & Production II
(Previously RTV 211 Radio Programming & Production II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Focuses on styles of writing and reporting news, editorials, interviews, and commentaries; station logs and announcing styles and techniques; the Federal Communications Commission with emphasis on politics and serving the public interest; job finding and advancing in broadcasting; women in broadcasting; drama; and specialized production. Includes sports casting and weather casting.

RTV 2002 Advanced Television Production
(Previously RTV 212 Advanced Television Production)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 multi-camera production. Examines use of effects and chroming. Includes laws and ethics governing the television broadcast industry and Institutional Television.

RTV 2003 Audio Mixing
(Previously RTV 210 Audio Mixing)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Includes the fundamentals of audio mixing from the audio source to final master. By explaining the principles of mixing and the

technical foundations of audio recording. Analyzing the principles of acquiring, manipulating, recording, and final mixing of audio and discussing the differences between digital and analog recording. Each student will summarize the function of microphones, audio sources, recording devices, and speakers and complete recording exercises and projects according to provided guidelines. Demonstration of linear and non-linear master mixing will also be required.

RTV 2005 Advanced Video Production
(Previously RTV 218 Advanced Video Production)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Develops advanced video production skills to prepare students for entry into the video production industry. Covers producing, directing, lighting, shooting, and editing techniques, as well as production aesthetics from industry standards. Provides hands on experience with linear and non-linear editing systems, and establishment of lighting and camera shooting techniques.

RTV 2007 Broadcast Management
(Previously RTV 260 Broadcast Management)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the field of broadcast management as applied to day-to-day radio and television station operations, broadcast law, broadcast promotion, sales, research, ratings, logs, demographics and human relations in the broadcast workplace and arena.

RTV 2016 Multi-Media Reporting
3 Credit Hours ●67.5 Contact Hours (Lecture/Lab Combination)
Introduces multi-media reporting, the fundamentals of reporting, gathering information, capturing compelling audio and video, and editing them all together to create engaging news stories across platforms.

RTV 2080 Internship – TV Studio/Video Production II
(Previously RTV 280 Internship – TV Studio/Video Production II)
3 Credit Hours • 135 Contact Hours (Internship)
Provides experience in a commercial television station or an allied industry.

RTV 2083 Internship – Radio Station/Audio Production II
(Previously RTV 283 Internship – Radio Station/Audio Production II)
3 Credit Hours • 135 Contact Hours (Internship)
Incorporates advanced experience in a commercial radio station or an allied industry.

RTV 2181 Internship in the News – KEPC Radio
(Previously RTV 281 Internship in the News – KEPC Radio)
3 Credit Hours • 135 Contact Hours (Internship)
Enables the student to cover news events, actualities, and report several regular newscasts on KEPC.

RTV 2182 Internship – KEPC Radio II
(Previously RTV 282 Internship – KEPC Radio II)
3 Credit Hours • 135 Contact Hours (Internship)
Incorporates advanced experience on radio station KEPC.

RTV 2184 Internship in Telecommunications
(Previously RTV 284 Internship in Telecommunications)
3 Credit Hours • 135 Contact Hours (Internship)
Provides experience in a commercial TV station or an allied industry.

Radiologic Technology Courses

RTE 1001 Introduction to Radiography
(Previously RTE 101 Introduction to Radiography)
2 Credit Hours • 30 Contact Hours (Lecture)
Prerequisite: College Readiness in English
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 1011 Radiographic Patient Care
(Previously RTE 111 Radiographic Patient Care)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
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 1021 Radiographic Procedures I
(Previously RTE 121 Radiographic Procedures I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
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 1022 Radiographic Procedures II
(Previously RTE 122 Radiographic Procedures II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: RTE 1021
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 1041 Radiographic Equipment & Imaging I
(Previously RTE 141 Radiographic Equipment & Imaging I)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1042 Radiographic Equipment & Imaging II
(Previously RTE 142 Radiographic Equipment & Imaging II)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: RTE 1041
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 1081 Internship: Radiographic I
(Previously RTE 181 Radiographic Internship I)
5 Credit Hours • 225 Contact Hours (Internship)
Introduces the clinical education experience at the healthcare facility. The course focuses on the application of knowledge to the actual practice of radiography.

RTE 1082 Internship: Radiographic II
(Previously RTE 182 Radiographic Internship II)
5 Credit Hours • 225 Contact Hours (Internship)
Prerequisite: RTE 1081
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 1083 Internship: Radiographic III
(Previously RTE 183 Radiographic Internship III)
7 Credit Hours • 315 Contact Hours (Internship)
Prerequisite: RTE 1082
Reinforces and builds independence in the clinical internship experience. Applies radiographic knowledge learned in the classroom and prior clinical internship experience.

RTE 2021 Advanced Medical Imaging
(Previously RTE 221 Advanced Medical Imaging)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: RTE 1022
Offers advanced imaging techniques including radiographic procedures involving the skull, trauma, mobile, surgical, pediatric, special procedures, and advanced modalities.

RTE 2031 Radiation Biology/Protection
(Previously RTE 231 Radiation Biology/Protection)
Prerequisite: RTE 1041
2 Credit Hours • 30 Contact Hours (Lecture)
Provides the basic knowledge and understanding of the biologic effects of ionizing radiation and radiation protection and safety.

RTE 2081 Radiographic Internship IV
(Previously RTE 281 Radiographic Internship IV)
8 Credit Hours • 360 Contact Hours (Internship)
Prerequisite: RTE 1083
Introduces the student to the radiographic specialty areas of Pediatrics, Geriatrics, the out-patient clinic, as well as increasing proficiency in general radiography.

RTE 2082 Radiographic Clinical Internship V
(Previously RTE 282 Radiographic Internship V)
8 Credit Hours • 360 Contact Hours (Internship)
Prerequisite: RTE 2081
Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the out-patient clinic, portable and trauma radiography as well as increasing proficiency in general radiography.

RTE 2089 Capstone
(Previously RTE 289 Capstone)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: RTE 2021, RTE 2031
Prepares the radiology technology student to effectively search for a job in radiography and sit for the American Registry of Radiologic Technology examination.

Recreation Courses

REC 1000 Introduction to Recreation
(Previously REC 100 Introduction to Recreation)
2 Credit Hours • 30 Contact Hours (Lecture)
Studies the history, principles, philosophy, and contemporary problems and trends of recreation and their influence upon today's American society.

REC 1011 Outdoor Equipment & Facilities
(Previously REC 111 Outdoor Equipment & Facilities)
1 Credit Hour • 30 Contact Hours (Lab)
Acquaints and familiarizes the student with wilderness equipment, programs, and facilities. Includes field trips to local outdoor industry facilities.

REC 2010 Principles of Outdoor Recreation
(Previously REC 210 Principles of Outdoor Recreation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Includes lecture and practical outdoor experience relating to problems and trends in outdoor recreation.

REC 2011 Outdoor Leadership
(Previously REC 211 Outdoor Leadership)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1210, REC 1000
Note: Sophomore status
Introduces the development, acquisition, and application of outdoor leadership skills and knowledge. Focuses on the latest information philosophy, and techniques necessary to safely conduct outdoor programs and expeditions as an outdoor leader. Skills are applied under actual field conditions. Emphasizes minimal impact camping, wilderness ecology, judgment and decision making, group dynamics and trip logistics. These skills enhance effectiveness as an outdoor leader.

REC 2012 Outdoor Recreation Programming
(Previously REC 212 Outdoor Recreation Programming)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Note: Sophomore status
Provides effective planning, staffing, and budgeting for the outdoor experience for the maximum opportunity for a successful program. Issues of marketing and promotion, agency coordination, risk management, environmental impact, logistics and the customer needs and expectations are addressed.

REC 2020 Social Recreation and Leadership
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: OUT 1200, OUT 1210, REC 1000
Note: Sophomore status
Enables the student to study effective leadership methods and techniques used in social recreation programming. Students experience actual settings of appropriate activities in community organizations with different age groups.

Russian Courses

RUS 1011 Russian Language I
(Previously RUS 111 Russian Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the Russian language.

RUS 1012 Russian Language II
(Previously RUS 112 Russian Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: RUS 1011
Continues Russian I in the development of functional proficiency in listening, speaking, reading, and writing the Russian language.

RUS 2011 Russian Language III: AH4
(Previously RUS 211 Russian Language III: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: RUS 1012
Continues Russian Language II in the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing, and cultural competency in the Russian language. This course is conducted predominantly in Russian.

RUS 2012 Russian Language IV: AH4
(Previously RUS 212 Russian Language IV: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: RUS 2011
Continues Russian Language III in the development of increased functional proficiency at intermediate mid-level in speaking, aural comprehension, reading, writing, and cultural competency in the Russian language. This course is conducted predominantly in Russian.

Science Courses

SCI 1055 Integrated Science I-Physics & Chemistry with Lab: SC1
(Previously SCI 155 Integrated Science I-Physics & Chemistry with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English
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.

SCI 1056 Integrated Science II-Earth & Life Sciences with Lab: SC1
(Previously SCI 156 Integrated Science II-Earth & Life Sciences with Lab: SC1)
4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)
Prerequisite: College Readiness in English
Examines earth and biological systems, living and non-living environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments.

SCI 1105 Science in Society: SC2
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines issues relating to the way science interacts with society. A selection of issues from information technology, the environment and earth science, physics and astronomy, biology, medicine, and the interaction of science with politics will be examined, as informed by current events. Emphasis will be on research, inquiry, and critical analysis of science-related issues, including the negative and positive roles of science in society.

Social Work Courses

SWK 1000 Introduction to Social Work
(Previously SWK 100 Introduction to Social Work)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: This course transfers to CSU-Pueblo
Introduces students to the philosophy of the social work profession including the knowledge, values, ethics, roles, and skills inherent to generalist social work.

SWK 1050 Application of Group Counseling
(Previously SWK 105 Application of Group Counseling)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers the basic techniques, philosophies, and principles of problem solving through group counseling. It teaches group leaders how to apply techniques in working with a variety of client groups.

SWK 1060 Introduction to Alcohol & Drugs
(Previously SWK 106 Introduction to Alcohol & Drugs)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1080 Internship I
(Previously SWK 180 Internship I)
6 Credit Hours • 270 Contact Hours (Internship)
Provides work experience in a business or industry.

SWK 1081 Internship II
(Previously SWK 181 Internship II)
6 Credit Hours • 270 Contact Hours (Internship)
Provides work experience in a business or industry.

SWK 2008 Social Work Case Management
(Previously SWK 208 Social Work Case Management)
3 Credit Hours • 45 Contact Hours (Lecture)
Prepares students for work in the area of social services case management. Some of the topics that students will study include client assessment, resource identification, interventions with diverse client populations, counseling, NASW Code of Ethics, linkage, and outcome evaluation.

SWK 2010 Human Behavior in the Social Environment I
(Previously SWK 201 Human Behavior in the Social Environment I)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: This course transfers to CSU-Pueblo
Focuses on the person in the environment throughout the life span with an examination of the relationship between biological, psychological, social, spiritual, and cultural systems.

SWK 2020 Human Behavior in the Social Environment II
(Previously SWK 202 Human Behavior in the Social Environment II)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: This course transfers to CSU-Pueblo
Focus in this course is on an understanding and analysis of larger social systems which include the family, groups, communities and organizations. Emphasis is on social systems as an organizing theoretical framework for understanding social functioning and change.

SWK 2050 Social Welfare in the U.S.
(Previously SWK 205 Social Welfare in the U.S.)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: This course transfers to CSU-Pueblo
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 2070 Differential Approaches in Social Services
(Previously SWK 207 Differential Approaches in Social Services)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces students to some contemporary counseling theories. Provides a basic understanding of treatment modalities to include Reality Therapy, Client Centered Therapy, and Behavior Modification.

SWK 2080 Internship III
(Previously SWK 280 Internship III)
6 Credit Hours • 270 Contact Hours (Internship)
Provides work experience in a business or industry.

SWK 2222 Introduction to Social Work Practice
(Previously SWK 222 Introduction to Social Work Practice)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: This course transfers to CSU-Pueblo
Application of the foundation of generalist practice skills. Requires 15 clock hours of volunteer work in an approved human service agency.

Sociology Courses

SOC 1001 Introduction to Sociology I: SS3
(Previously SOC 101 Introduction to Sociology I: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
This course examines the basic concepts, theories, and principles of sociology, including topics of culture, race, class, gender, sexuality, social groups, and deviance through a local and global lens. Analyzes and interprets socio historic as well as contemporary issues by using critical thinking skills and linking individual experiences to social structures.

SOC 1002 Introduction to Sociology II: SS3
(Previously SOC 102 Introduction to Sociology II: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines the basic concepts, theories, and principles of sociology, including topics of family, religion, education, politics, the economy, health, demography, the environment, and social movements through a local and global lens. Analyzes and interprets socio historical as well as contemporary issues by using critical thinking skills and linking individual experiences to social structures.

SOC 2005 Sociology of Family Dynamics: SS3
(Previously SOC 205 Sociology of Family Dynamics: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Offers a critical exploration of marriage, family, and kinship. It examines the family as an institution and how social, cultural, and personal factors influence family relations locally and globally. Explores the stability and evolution of the family, along with current trends and a range of family forms.

SOC 2007 Environmental Sociology: SS3
(Previously SOC 207 Environmental Sociology: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines how humans' relationship with the environment is mediated by social stratification. Key topic areas include industrial and economic growth versus sustainability, natural resources development and management, cultural values, social movements, and comparative perspectives on people's relationship to the environment.

SOC 2016 Sociology of Gender: SS3
(Previously SOC 216 Sociology of Gender: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Examines major trends and theoretical approaches within the field of sociology of gender including the impact of intersecting social markers such as race, class, sexuality, and gender identities. Addresses gender performance, stratification and inequalities in micro and macro settings in the U.S. Focuses on social movements relating to identities and institutional inequalities.

SOC 2018 Sociology of Diversity: SS3
(Previously SOC 218 Sociology of Diversity: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores differences based on race, ethnicity, social class, gender, age, ability status, and sexual identity. Critically examines the dynamics of intergroup relations and how social construction of these differences can lead to patterns of prejudice, discrimination, and inequality nationally and globally.

SOC 2020 Sociology of Religion: SS3
(Previously SOC 220 Sociology of Religion: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Further explores the study of the sociology of religion. Analyzes the socially constructed definition of religion, the forms religion takes in various societies, the impact religion has on local and global societies and social institutions and the many ways in which people shape, maintain, or disassemble religious structures.

SOC 2031 The Sociology of Deviant Behavior: SS3
(Previously SOC 231 The Sociology of Deviant Behavior: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Critically examines various deviant categories and societal reactions to deviance affecting diverse populations. Examines how sociologists study deviance and the theories they use to explain it. Explains the ways social institutions define deviance and attempt to control, change, or treat those deviant behaviors, attitudes, and conditions.

SOC 2037 Sociology of Death & Dying: SS3
(Previously SOC 237 Sociology of Death & Dying: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores the socially constructed nature of how individuals and societies interact with death and dying. Examines how individuals experience death and dying based on their social location. Analyzes diversity in grief practices related to death.

Spanish Courses

SPA 1001 Conversational Spanish I
(Previously SPA 101 Conversational Spanish I)
3 Credit Hours • 45 Contact Hours (Lecture)
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 1002 Conversational Spanish II
(Previously SPA 102 Conversational Spanish II)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: SPA 1001
Offers students the skills necessary to understand and speak Spanish. The material continues to cover basic conversational patterns, expressions, and grammar.

SPA 1009 Spanish for Travelers
(Previously SPA 109 Spanish for Travelers)
2 Credit Hours • 30 Contact Hours (Lecture)
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 1011 Spanish Language I
(Previously SPA 111 Spanish Language I)
5 Credit Hours • 75 Contact Hours (Lecture)
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 1012 Spanish Language II
(Previously SPA 112 Spanish Language II)
5 Credit Hours • 75 Contact Hours (Lecture)
Prerequisite: SPA 1011
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 1014 Fast-Track Spanish I & II
(Previously SPA 114 Fast-Track Spanish I & II)
5 Credit Hours • 75 Contact Hours (Lecture)
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 1015 Spanish for the Professional I
(Previously SPA 115 Spanish for the Professional I)
3 Credit Hours • 45 Contact Hours (Lecture)
Designed as an introduction to a working knowledge of the Spanish language, cultural behaviors, and values useful in various professional fields such as health care, law enforcement, bilingual education, business, and others.

SPA 2001 Conversational Spanish III
(Previously SPA 201 Conversational Spanish III)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: SPA 1002
Provides students with the skills necessary to continue their study of understanding and speaking Spanish. The material includes intermediate level vocabulary, grammar, and expressions.

SPA 2002 Conversational Spanish IV
(Previously SPA 202 Conversational Spanish IV)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: SPA 2001
Provides students the skills necessary to continue their study of understanding and speaking Spanish. The material will continue to cover intermediate level conversational patterns, expressions, and grammar.

SPA 2011 Spanish Language III: AH4
(Previously SPA 211 Spanish Language III: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: SPA 1012
Continues Spanish Language II in the development of increased functional proficiency at the intermediate level in speaking, aural comprehension, reading, writing, and cultural competency in the Spanish language. This course is conducted predominantly in Spanish.

SPA 2012 Spanish Language IV: AH4
(Previously SPA 212 Spanish Language IV: AH4)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: SPA 2011
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.

SPA 2015 Spanish for the Professional II
(Previously SPA 215 Spanish for the Professional II)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: SPA 1015
Continues SPA 1015 in the development of a working knowledge of the Spanish language, cultural behaviors, and values useful in various professional fields such as health care, law enforcement, bilingual education, business, and others.

SPA 2061 Spanish Language for Heritage and Intermediate-Mid Speakers
(Previously SPA 261 Grammar for the Heritage Language Speaker)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: Permission of Instructor required
Focuses on developing Spanish language skills necessary for communication in social and professional settings. Coursework is curated for speakers who learned Spanish in an informal, non-academic setting and for intermediate-mid speakers. This course emphasizes grammar, vocabulary expansion, reading and writing skills, global linguistic variations, and topics related to Hispanic communities in the United States and the Spanish-speaking world.

SPA 2062 Writing for Heritage and Intermediate-Mid Spanish Speakers
(Previously SPA 262 Composition for the Heritage Language Speaker)
3 Credit Hours • 45 Contact Hours (Lecture)
Emphasizes the writing skills necessary for communication in professional and academic settings, focusing on topics related to Hispanic communities in the United States and the Spanish-speaking world. Coursework is curated for speakers who learned Spanish in an informal, non-academic setting and for intermediate-mid speakers.

SPA 2089 Capstone
(Previously SPA 289 Capstone)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a demonstrated culmination of learning within a given program of study.

Sterile Processing Technology Courses

SPI 1000 Sterile Instrument Processing
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Reviews the job skills needed for the sterile processing technician. Includes the fundamentals of the central services department, instrument processing and important regulatory protocols. Includes a comprehensive review of medical terminology, anatomy, and microbiology. Infection prevention and important environmental control and safety factors are included. The importance of professionalism, clinical advancement and workplace communication is presented.

SPI 1001 Sterile Instrument Lab Skills
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Reviews hands on knowledge and job skills needed by the sterile processing technician. Includes a comprehensive review of surgical instrumentation, including instrument categories, design and construction, assembly, care, and maintenance. Tools and equipment utilized for instrument processing is presented. Instrument decontamination, cleaning, processing, and various methods of sterilization is discussed.

SPI 1081 Internship: Sterile Processing
9 Credit Hours • 405 Contact Hours (Internship)
Complete 400 hours of clinical internship in the sterile processing department.

SPI 2079 Seminar
1 Credit Hour • 15 Contact Hours (Lecture)
Provides students with an exceptional learning experience.

Surgical Technology Courses

STE 1000 Fundamentals of Surgical Technology
(Previously STE 100 Fundamentals of Surgical Technology)
6 Credit Hours • 135 Contact Hours (Lecture/Lab Combination)
Note: Recommended Preparation: BIO 2102 and PSY 2440
Note: Instructor Signature Required
Introduces the fundamental principles and practices of surgical technology, including an orientation to the profession and a review of legal and ethical issues. Topics about patient needs, special patient populations, the physical environment, and safety issues related to the surgical setting and biomedical sciences will also be discussed.

STE 1001 Surgical Technology Skills Lab
(Previously STE 101 Surgical Technology Skills Lab)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Instructor Signature Required
Introduces hands-on skills in a mock operating room environment. This training will include the pre-operative, intra-operative and post-operative phases of surgery.

STE 1005 Pharmacology of Surgical Technologist
(Previously STE 105 Pharmacology of Surgical Technologist)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: Instructor Signature Required
This course discusses relevant knowledge as it pertains to surgical pharmacology theory, drugs, and aspects of anesthesia.

STE 1010 Surgical Procedures I
(Previously STE 110 Surgical Procedures I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Reviews General, Obstetric/Gynecological and Urologic surgical procedures.

STE 1015 Surgical Procedures II
(Previously STE 115 Surgical Procedures II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Reviews plastic, otorhinolaryngological, ophthalmologic and orthopedic surgical procedures.

STE 1020 Surgical Procedures III
(Previously STE 120 Surgical Procedures III)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Reviews cardiac, peripheral vascular, and neurologic surgical procedures. This course includes a review of the instruments, equipment and supplies utilized during the preoperative, intraoperative, and postoperative phases of these procedures.

STE 1081 Internship I
(Previously STE 181 Internship I)
4 Credit Hours • 180 Contact Hours (Internship)
Allows students to integrate theoretical concepts in a clinical setting.

STE 1082 Internship II
(Previously STE 182 Internship II)
4 Credit Hours • 180 Contact Hours (Internship)
Allows students to integrate advanced theoretical concepts in a clinical surgical setting.

STE 1083 Internship III
(Previously STE 183 Internship III)
6 Credit Hours • 270 Contact Hours (Internship)
Allows students to integrate advanced theoretical concepts in a clinical surgical setting.

STE 2068 Surgical Technical Seminar
(Previously STE 179 Surgical Technical Seminar)
2 Credit Hours • 30 Contact Hours (Lecture)
Allows Surgical Technology students to learn techniques helpful in passing the required national certification exam for surgical technology from the Association for Surgical Technologists.

Sustainability Studies Courses

SUS 1001 Introduction to Sustainability
(Previously SUS 101 Introduction to Sustainability)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the principles of sustainability as a whole-systems approach, important personal or public practice, and a global movement. The course explores the historical, philosophical, and ethical pillars of sustainability and includes a wide range of sustainability topics. The course emphasizes integrated and systemic understanding of major sustainability issues and identifies avenues for individual and collective action.

SUS 2001 Issues in Sustainability
(Previously SUS 201 Issues in Sustainability)
3 Credit Hours • 45 Contact Hours (Lecture)
Explores in depth one to two major sustainability issues that are both local and global in their scope and draws connections between specific sustainability challenges and the larger causes and effects of the global sustainability crisis. This course examines the selected issues from environmental, social or cultural, and economic perspectives; and presents the framework of social-ecological resilience as a normative guide for applied action.

Theatre Courses

THE 1004 Basic Costume & Apparel Construction
(Previously THE 104 Basic Costume & Apparel Construction)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Provides students with training in cutting and sewing techniques, as well as knowledge of fabric types, qualities, uses, and cleaning.

THE 1005 Theatre Appreciation: AH1
(Previously THE 105 Theatre Appreciation: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an opportunity to discover, analyze, and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism, and theory.

THE 1008 Theatre Script Analysis: AH1
(Previously THE 108 Theatre Script Analysis: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Explore methods of reading and analyzing a variety of diverse texts for the stage. Additionally, this course provides an opportunity to interpret theatre scripts through cultural lenses and dramaturgical research methods.

THE 1011 Acting I
(Previously THE 111 Acting I)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: It is strongly recommended to take THE 1005 before THE 1011
Covers basic acting techniques and approaches including scene study, improvisation, and script analysis. It includes practical application through classroom performance.

THE 1012 Acting II
(Previously THE 112 Acting II)
3 Credit Hours • 45 Contact Hours (Lecture)
Note: It is strongly recommended to take THE 1005 before THE 1012
Continues to explore basic acting techniques and approaches including scene study, improvisation, and intermediate script

analysis. It includes practical application through classroom performance.

THE 1015 Stage Movement for Actors
(Previously THE 115 Stage Movement for Actors)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces the vocabulary of human movement, techniques of physical training, and anatomy and kinesiology for the actor. The course includes forms of basic dance and the coordination of movement with vocal delivery.

THE 1016 Technical Theatre
(Previously THE 116 Technical Theatre)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces methods of constructing and painting scenery and properties, operating stage lighting and sound equipment, and implementing costumes and multimedia. This course explores the proper procedures of serving on stage crews.

THE 1026 Auditioning for Musical Theater
(Previously THE 126 Auditioning for Musical Theater)
3 Credit Hours • 45 Contact Hours (Lecture)
Builds a confident, talented, and exciting audition. It includes a mock videotaped audition, and covers resumes, head shots, repertoire choices, stage fright, 16-bar audition, and dressing for success. This course is presented in conjunction with producers from regional theaters providing valuable feedback for the participants.

THE 1031 Theatre Production I
(Previously THE 131 Theatre Production I)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
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 1032 Theatre Production II
(Previously THE 132 Theatre Production II)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
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 1035 Stage Makeup I
(Previously THE 135 Stage Makeup)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Explores stage makeup design and application techniques including basic corrective, character, old age, animal, and fantasy applications.

THE 1036 Stage Makeup II
(Previously THE 136 Stage Makeup II)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Continues to examine theatrical makeup design and application techniques, adding prosthetics, hair design and other advanced applications.

THE 1040 Stage Dialects
(Previously THE 140 Stage Dialects)
1 Credit Hour • 15 Contact Hours (Lecture)
Teaches students to develop skills in nine dialects and accents.

THE 1044 Scene Study
(Previously THE 144 Scene Study)
1 Credit Hour • 15 Contact Hours (Lecture)
Emphasizes the Stanislavski approach. Students will explore acting skills through advanced material, including Avant garde and classical.

THE 1052 Production Stage Management I
(Previously THE 152 Production Stage Management I)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Focuses on the basics of stage management, including making a stage manager`s book, organizational methods and protocols of production, calling cues in production and personnel relationships and responsibilities.

THE 1081 Internship
(Previously THE 181 Internship)
1–3 Credit Hours • Per Credit Hour, 15 Contact Hours (Lecture)
Focuses on the selection and preparation of audition materials, including prepared monologues, cold reading, and improvisation techniques. Basics of resume preparation are also discussed.

THE 1082 Internship
(Previously THE 182 Internship)
1-3 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
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 1083 Internship
(Previously THE 183 Internship)
1-3 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Allows students to continue 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 2004 Voice & Articulation I
(Previously THE 204 Voice & Articulation I)
2 Credit Hours • 30 Contact Hours (Lecture)
Emphasizes vocal development including diction, enunciation, projection, dialects, and vocal interpretation of written materials. Students strive to eliminate regionalisms and tonal faults, e.g., nasality, stridency, sibilance, breathiness.

THE 2011 Development of Theatre Greek-Renaissance: AH1
(Previously THE 211 Development of Theatre Greek-Renaissance: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Surveys the history and development of theatrical practices from Ancient Greece to the Renaissance as well as non-western forms, emphasizing all aspects of performance from period values to analysis of dramatic literature and culture.

THE 2012 Development of Theatre Restoration to Modern: AH1
(Previously THE 212 Development of Theatre Restoration to Modern: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Surveys the history and development of theatrical practices from Restoration to the present as well as non-Western forms, emphasizing all aspects of performance from period values to analysis of dramatic literature and culture.

THE 2013 Intermediate Acting I
(Previously THE 213 Intermediate Acting I)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues THE 1012. Emphasis is on artistic concentration of voice and movement. A detailed character biography is required.

THE 2015 Playwriting: AH1
(Previously THE 215 Playwriting: AH1)
3 Credit Hours • 45 Contact Hours (Lecture)
Develops playwriting techniques emphasizing elements of dramatic structure, dialogue, styles, creative writing, and theatrical practices.

THE 2016 Theatre Lighting & Design
(Previously THE 216 Theatre Lighting & Design)
3 Credit Hours • 45 Contact Hours (Lecture)
Focuses on the theory and practice of stage lighting. Topics include basic electrical theory, color theories, rigging and design of lighting for the performing arts.

THE 2020 Directing I
(Previously THE 220 Directing I)
3 Credit Hours • 45 Contact Hours (Lecture)
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 2031 Theatre Production III
(Previously THE 231 Theatre Production III)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
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 2032 Theatre Production IV
(Previously THE 232 Theatre Production IV)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
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 2046 Rehearsal & Performance
(Previously THE 246 Rehearsal & Performance)
1 Credit Hour • 30 Contact Hours (Lab)
Gives the student actor practical experience in a real acting environment. Through the audition and rehearsal process the student's imagination and creative potential will be stimulated. Special attention will be given to characterization, stage movement, speech techniques, dramatic form and the rehearsal/production/performance process. The successful rehearsal and presentation of the current production to the public will be the focal point of their activities. Previous acting experience is helpful but not required.

THE 2047 Rehearsal & Performance II
(Previously THE 247 Rehearsal & Performance II)
2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)
Gives the student actor practical experience in a real acting environment. Through the audition and rehearsal process the student's imagination and creative potential will be stimulated. Special attention will be given to characterization, stage movement, speech techniques, dramatic form and the rehearsal / production / performance process. The successful rehearsal and presentation of the current production to the public will be the focal point of their activities. Previous acting experience is helpful but not required.

THE 2048 Rehearsal & Performance III
(Previously THE 248 Rehearsal & Performance III)
3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)
Gives the student actor practical experience in a real acting environment. Through the audition and rehearsal process the student's imagination and creative potential will be stimulated. Special attention will be given to characterization, stage movement, speech techniques, dramatic form and the rehearsal / production / performance process. The successful rehearsal and presentation of the current production to the public will be the focal point of their activities. Previous acting experience is helpful but not required.

THE 2055 Advanced Playwriting
(Previously THE 255 Advanced Playwriting)
3 Credit Hours • 45 Contact Hours (Lecture)
Continues to explore playwriting techniques developed in THE 2015 for theatre and applies concepts of writing for movie, television, radio, and animation scripts, with emphasis on the dramatic process and form.

Translation and Interpretation Courses

TRI 1001 Introduction to Translation & Interpretation
(Previously TRI 101 Introduction to Translation & Interpretation)
3 Credit Hours • 45 Contact Hours (Lecture)
Presents an introduction to translation and interpretation including basic principles, procedures, and techniques; a portrait of the work duties of the various types of translators and interpreters; and theoretical foundations for translation and interpretation.

TRI 1003 Ethics for Translation & Interpretation
(Previously TRI 103 Ethics for Translation & Interpretation)
2 Credit Hours • 30 Contact Hours (Lecture)
Presents the general National and State ethical guidelines that govern the conduct of professional interpreters and translators and the role of cultural competence in effective translation and interpretation.

TRI 2001 Consecutive Interpretation I
(Previously TRI 201 Consecutive Interpretation I)
3 Credit Hours • 45 Contact Hours (Lecture)
Presents the theory, history, and skills of consecutive interpretation and fosters the practical application of these skills.

TRI 2002 Simultaneous Interpretation I
(Previously TRI 202 Simultaneous Interpretation I)
3 Credit Hours • 45 Contact Hours (Lecture)
Presents the theory, history, and skills of simultaneous interpretation and fosters the practical application of these skills.

TRI 2003 Sight Translation
(Previously TRI 203 Sight Translation)
3 Credit Hours • 45 Contact Hours (Lecture)
Presents the theory, history, and skills of sight translation and fosters the practical application of these skills.

Veterinary Technology Courses

VET 1002 Veterinary Medical Terminology
(Previously VET 102 Veterinary Medical Terminology)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
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, 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.

VET 1003 Veterinary Assistant Restraint & Handling
(Previously VET 103 Veterinary Assistant Restraint & Handling)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces students to basic animal care skills and clinical procedures common to a veterinary assistant in practice. Laboratories provide practice in restraint, grooming and physical exam techniques.

VET 1004 Assistant Large Animal Nursing
(Previously VET 104 Assistant Large Animal Nursing)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1003 (Grade of C or higher)
Presents commonly encountered medical and surgical conditions of common large animal species with emphasis on the role of the veterinary assistant. This course focuses on handling and specific skills necessary for the profession.

VET 1008 Introduction to Laboratory Procedures
(Previously VET 108 Introduction to Laboratory Procedures)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: BIO 1111; VET 1002 or concurrent enrollment, VET 1016 or concurrent enrollment, VET 1020 or concurrent enrollment, VET 2005 or concurrent enrollment
Studies the biology, clinical appearance, and laboratory diagnosis of parasitic diseases of veterinary and zoonotic importance.

VET 1009 Applied Companion Animal Behavior
(Previously VET 109 Applied Companion Animal Behavior)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Explores the topic of companion animal behavior and learning theory through critical reviews of behavioral literature and its implications for applied techniques in behavior and training. This course provides an understanding of how animals learn, how we can improve inter-species communication to reduce fear, stress, and anxiety, and how to apply this knowledge to the everyday treatment of animals under veterinary care.

VET 1014 Vet Assistant Lab & Clinical Procedures
(Previously VET 114 Vet Assistant Lab & Clinical Procedures)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1003 (Grade of C or higher), VET 1020 (Grade of C or higher)
Covers selected areas of common laboratory and diagnostic imaging procedures performed in a veterinary hospital. Emphasis is on assisting the veterinarian and/or veterinary technician with these procedures.

VET 1015 Surgical Nursing
(Previously VET 115 Surgical Nursing)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1008, VET 1016, VET 2005 (Grade of C or higher); VET 1083 or concurrent enrollment, VET 1206 or concurrent enrollment, VET 2006 or concurrent enrollment, VET 2023 or concurrent enrollment, VET 2024 or concurrent enrollment
Introduces surgical instruments and supplies, aseptic technique, and the roles of all surgical personnel in the field of veterinary medicine. This course covers commonly performed veterinary surgical procedures. This course meets the requirements of an American Veterinary Medical Association (AVMA) Veterinary Technology Program.

VET 1016 Humane Treatment & Handling of Animals
(Previously VET 116 Humane Treatment and Handling of Animals)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1002 or concurrent enrollment, VET 1008 or concurrent enrollment, VET 1020 or concurrent enrollment, VET 2005 or concurrent enrollment
Focuses on humane animal handling techniques in a veterinary clinical setting. Restraint, medication administration, and common clinical procedures routinely performed by veterinary technicians will be covered.

VET 1017 Veterinary Assistant Surgery & Nursing Care
(Previously VET 117 Veterinary Assistant Surgery & Nursing Care)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1002 (Grade of C or higher), VET 1003 (Grade of C or higher), VET 1009 (Grade of C or higher); VET 1014 or concurrent enrollment
Introduces surgical assisting of the veterinarian and/or the veterinary technician, including basic knowledge of surgical instruments and surgery room hygiene. It also introduces basic nursing care of animal patients including safety concerns and nursing procedures.

VET 1020 Office Procedures & Relations
(Previously VET 120 Office Procedures and Relations)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
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.

VET 1034 Diagnostic Imaging
(Previously VET 134 Diagnostic Imaging)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1008, VET 1016, VET 2005, VET 2006 (Grade of C or higher); VET 2080 or concurrent enrollment
Covers selected areas of diagnostic imaging with an emphasis on radiology. Topics will include radiation properties, x-ray production, radiographic equipment, darkroom procedures, the radiographic image, animal positioning and radiation safety. An introduction to special imaging techniques such as computed tomography (CT scan) and ultrasound will also be included.

VET 1082 Internship
(Previously VET 182 Internship)
2 Credit Hours ● 90 Contact Hours (Internship)
Prerequisite: VET 1008 (Grade of C or higher); VET 1015 or concurrent enrollment, VET 1206 or concurrent enrollment, VET 2006 or concurrent enrollment, VET 2023 or concurrent enrollment, VET 2024 or concurrent enrollment
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.

VET 1083 Internship
(Previously VET 183 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Prerequisite: VET 102 (Grade of C or higher), VET 1003 (Grade of C or higher), VET 1004 (Grade of C or higher), VET 1009 (Grade of C or higher), VET 1014 (Grade of C or higher), VET 1017 (Grade of C or higher), VET 1020 (Grade of C or higher)
Note: Requires a GPA of 2.75 calculated from the required prerequisite courses
Grading: P/F only
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.

VET 1206 Exotic Animal Handling
(Previously VET 106 Exotic Animal Handling)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1008, VET 1016, VET 2005 (Grade of C or higher); VET 1015 or concurrent enrollment, VET 1083 or concurrent enrollment, VET 2006 or concurrent enrollment, VET

2023 or concurrent enrollment, VET 2024 or concurrent enrollment

Designed to provide students knowledge and skills required for veterinary technicians. This course focuses on exotic animal husbandry, handling, restraint, and specific problems encountered with exotic animals.

VET 1241 Clinical Laboratory Procedures
(Previously VET 241 Clinical Laboratory Procedures)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1083, VET 2023 (Grade of C or higher)
Discusses the biochemical derangements that characterize disease. Topics include proper collection and analysis of urine, blood, and cytological samples; basic principles of anatomic pathology; necropsy procedure and sample collection.

VET 2005 Veterinary Anatomy & Physiology I
(Previously VET 205 Veterinary Anatomy & Physiology I)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: BIO 1111; VET 1002 or concurrent enrollment, VET 1008 or concurrent enrollment, VET 1016 or concurrent enrollment, VET 1020 or concurrent enrollment
Covers the anatomy and physiology of the following body systems: Integumentary, Skeletal, Muscular, Respiratory, Cardiovascular and Lymphatic. The main species covered will be canine, feline, equine, and bovine.

VET 2006 Veterinary Anatomy & Physiology II
(Previously VET 206 Veterinary Anatomy & Physiology II)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1008 (Grade of C or higher)
Provides additional detail in anatomy and physiology of companion and farm animal species. The class covers interrelationships between body systems, such as respiratory, cardiovascular, urogenital, and reproductive. Additional topics include metabolism and digestion, acid/base balance, neuroendocrinology, and reproductive endocrinology. Applied laboratory experiences are included.

VET 2023 Introduction to Veterinary Anesthesia
(Previously VET 223 Introduction to Veterinary Anesthesia)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1015 or concurrent enrollment, VET 1083 or concurrent enrollment, VET 1206 or concurrent enrollment, VET 2006 or concurrent enrollment, VET 2024 or concurrent enrollment
Examines basic principles in veterinary anesthesiology, including the role of the veterinary technician anesthetist, important concepts relating to various types of anesthesia, preparation of anesthetic equipment and machine, pre-operative patient management, and recording information during anesthesia.

VET 2024 Pharmacology for Veterinary Technicians
(Previously VET 224 Pharmacology for Veterinary Technicians)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1008 (Grade of C or higher)
Provides background in pharmacology principles including topics such as: mechanism of drug action, types of drugs, anesthetic agents, pharmacy management and calculations related to drug dosages.

VET 2025 Anesthesiology
(Previously VET 225 Anesthesiology)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1008, VET 1015, VET 1083 (Grade of C or higher)
Covers all stages of an anesthetic event (pre-, peri-, post-op) including patient evaluation, appropriate forms of injectable and gaseous anesthesia for surgical and diagnostic procedures, and a working knowledge of equipment used during the anesthetic event. Other topics include anesthesia monitoring, response to complications, and surgical pain management. Species covered include canine, feline, bovine, equine, and an overview of exotics.

VET 2027 Animal Nutrition
(Previously VET 227 Animal Nutrition)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 2005, VET 2006 (Grade of C or higher)
Gives students a foundation in the principles of animal nutrition. The course focuses on the basic elements of nutrition including the major categories of nutrients, and their sources, digestion, and metabolism. Both large and small animal feeds and feeding will be covered. The course emphasizes the relationship between nutrition and health.

VET 2032 Veterinary Dentistry
(Previously VET 232 Veterinary Dentistry)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Examines essentials in veterinary dentistry as it concerns the veterinary technician, including dental morphology, performing a dental exam, identifying common dental problems, equipment used to perform a professional dental cleaning, the proper steps to perform a professional dental cleaning, and the role of veterinary technician in client education and preventative home care.

VET 2038 Small Animal Nursing
(Previously VET 238 Small Animal Nursing)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1241, VET 2025, VET 2027, VET 2081 (Grade of C or higher)
Presents commonly encountered medical and surgical conditions of the dog and cat with emphasis on the role of the veterinary technician. This course focuses on nursing concepts and specific skills necessary for the profession. Laboratory sessions will provide a hands-on teaching experience.

VET 2039 Large Animal Nursing
(Previously VET 239 Large Animal Nursing)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1241, VET 2025, VET 2027, VET 2081 (Grade of C or higher)
Presents commonly encountered medical and surgical conditions of common large animal species with emphasis on the role of the veterinary technician. This course focuses on nursing concepts and specific skills necessary for the profession. Laboratory sessions will provide a hands-on teaching experience.

VET 2042 Veterinary Critical Care
(Previously VET 242 Veterinary Critical Care)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Prerequisite: VET 1241, VET 2025, VET 2081 (Grade of C or higher)
Provides instruction in appropriate nursing assessment, monitoring and intervention with emergencies. Uses knowledge and understanding of overall anatomy, physiology, and disease or accident process to assist in veterinarian's diagnoses and treatment.

VET 2050 Clinical Competency Evaluation
(Previously VET 250 Clinical Competency Evaluation)
1 Credit Hour • 15 Contact Hours (Lecture)
Prerequisite: VET 1008, VET 1015, VET 1034, VET 1083, VET 1241, VET 2024, VET 2025, VET 2027, VET 2081 (Grade of C or higher)

Evaluates the students` clinical skills and knowledge after successful completion of the internship courses, in order to prepare them for the national board examination and clinical practice. Evaluation of clinical skills and knowledge includes selected clinical laboratory techniques (parasitology, hematology, urinalysis, cytology, chemistry, serology, microbiology); diagnostic imaging; office procedures; surgical preparation, instrumentation and assistance; anesthesia induction, maintenance and monitoring; restraint and handling techniques; small, large and laboratory animal diagnostic and therapeutic techniques; and pharmacology calculations, labeling and drug classification.

VET 2080 Internship
(Previously VET 280 Internship)
1 Credit Hour • 45 Contact Hours (Internship)
Prerequisite: VET 1016, VET 2005, VET 2006 (Grade of C or higher); VET 1034 or concurrent enrollment
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.

VET 2081 Internship
(Previously VET 281 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
Prerequisite: VET 1083 (Grade of C or higher)
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.

VET 2082 Internship
(Previously VET 282 Internship)
4 Credit Hours • 180 Contact Hours (Internship)
Prerequisite: VET 1241, VET 2025, VET 2081 (Grade of C or higher)
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.

Water Quality Management Courses

WQM 1000 Introduction to Water Quality
(Previously WQM 100 Introduction to Water Quality)
3 Credit Hours • 45 Contact Hours (Lecture)
Introduces environmental concepts utilized in the water industry. The course covers how the subjects of geology, chemistry, biology, and physics influence the water industry, the hydrologic cycle on a global scale, and how to monitor and maintain water quality.

WQM 1005 Specific Calculations for Water Quality Management
(Previously WQM 105 Specific Calculations for Water Quality Management)
4 Credit Hours • 60 Contact Hours (Lecture)
Provides an in-depth study of the calculations associated with water and wastewater treatment. Topics include dimensional analysis, manipulation of conversion factors, geometric figures, velocities, detention time, surface loading, filtration and backwash rates, porosity, weir overflow rates, efficiencies, weight of dry solids, sludge pumping, settleable solids, volatile solids, mean cell residence times, settleability, disinfection and chemical dosage as relating to trickling filters, ponds, RBC, and activated sludge.

WQM 1006 Mechanical – Physical Treatment
(Previously WQM 106 Mechanical – Physical Treatment)
3 Credit Hours • 45 Contact Hours (Lecture)
Serves as a basic introduction into wastewater treatment. Topics include the technician and their responsibility, effects of waste discharges, natural cycles, solids in wastewater, NPDES permits, collection systems, pretreatment, primary treatment, secondary treatment, advanced treatment, flow measuring, solids handling and disposal.

WQM 1009 Water Distribution
(Previously WQM 109 Water Distribution)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers the purpose, selection and location of water storage facilities and the operation and maintenance of related equipment. Topics include storage facilities and capabilities, booster pumps, water mains and appurtances, joints, pipe protection and installation, valves, fittings, and hydrants. Water quality standards, contaminants and degradation inspection and monitoring, system troubleshooting, surveillance, cross connections, pressure main breaks, corrosion control, disinfection and emergency planning are also covered.

WQM 1015 Water Sources & Supplies
(Previously WQM 115 Water Sources & Supplies)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides an introduction into the water supply systems and sources of water. Topics include sources and selection of water, water quality problems, reservoir management, intake structures, well and introductory plant operations.

WQM 1016 Conventional Surface Water Treatment
(Previously WQM 116 Conventional Surface Water Treatment)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers coagulation, flocculation, sedimentation, filtering, corrosion and taste and odors. Topics for each process include descriptions, operating procedures, associated calculations, start-up and shut down procedures, laboratory tests, troubleshooting, maintenance, safety, and records.

WQM 1018 Wastewater Collection Systems
(Previously WQM 118 Wastewater Collection Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
Covers the purpose, components, and design of collection systems. Topics include safety procedures, inspection and testing, pipeline cleaning and maintenance, underground repair, lift stations and sewer rehabilitation.

WQM 1019 Basic Water Quality Analyses
(Previously WQM 119 Basic Water Quality Analyses)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Introduces laboratory analyses done in the water industry. The course covers the functionality and use of analytical instruments for safely analyzing water samples for common parameters relevant to the water industry. Water chemistry topics are explored to explain the use and function of the instrumentation.

WQM 1020 Water Quality Equipment Maintenance
(Previously WQM 120 Water Quality Equipment Maintenance)
4 Credit Hours • 60 Contact Hours (Lecture)
Provides a general understanding of mechanical and electrical equipment and its maintenance. Topics include safety procedures; correct use of power and hand tools; and preventive maintenance and repair maintenance of pumps, motors, chlorinators, motor control units, and other treatment plant equipment.

WQM 1026 Safety & Security Systems
(Previously WQM 126 Safety & Security Systems)
3 Credit Hours • 45 Contact Hours (Lecture)
Provides a study of safety procedures performed in the water and wastewater industry. This course covers the importance of safety and how to implement safety practices in the workplace by studying OSHA guidelines, driving practices, confined spaces, and chemical handling.

WQM 2000 Hydraulics for Water Quality Management
(Previously WQM 200 Hydraulics for Water Quality Management)
4 Credit Hours • 60 Contact Hours (Lecture)
Prerequisite: MAT 1340 or WQM 1005
Introduces the mathematical principles of density, specific gravity, pressures, horsepower and energy costs, velocities, weirs, parshall flumes, venturi meters, California Pipe method, flows from open end pipes, settling velocities and classification of flows.

WQM 2012 Drinking Water Regulations
(Previously WQM 212 Drinking Water Regulations)
4 Credit Hours • 60 Contact Hours (Lecture)
Provides the knowledge and skills to implement a compliance-monitoring program for a water treatment facility using groundwater or source water. The topics covered include all regulatory requirements found in the Safe Drinking Water Act regarding microbial and chemical contamination for monitoring and reporting operations.

WQM 2016 Biological & Bacteriological Water Quality Analyses
(Previously WQM 216 Biological & Bacteriological Water Quality Analyses)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Prerequisite: WQM 1019
Provides an in-depth study of microorganisms in the water industry. The course covers analysis of various water samples to identify different microorganisms and explore how these impact the water industry. Interpretation of mathematical formulas, instrumentation application, and proper lab protocols are covered.

WQM 2080 Internship
(Previously WQM 280 Internship)
3 Credit Hours • 135 Contact Hours (Internship)
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.

WQM 2089 Capstone
(Previously WQM 289 Capstone)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides a demonstrated culmination of learning within a given program of study.

Welding Courses

WEL 1000 Safety for Welders
(Previously WEL 100 Safety for Welders)
1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)
Covers the hazards of welding on health and safety.

WEL 1006 Blueprint Reading for Welders & Fitters
(Previously WEL 106 Blueprint Reading for Welders & Fitters)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers interpretation and creation of weld symbols and blueprints used in metal fabrication.

WEL 1013 Oxyfuel & Plasma Cutting
(Previously WEL 113 Oxyfuel & Plasma Cutting)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Outlines the skills needed to set up equipment and perform cutting and gouging operations utilizing the oxyacetylene and plasma arc cutting processes.

WEL 1014 Oxyacetylene Welding
(Previously WEL 114 Oxyacetylene Welding)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Teaches the skills necessary to perform safety inspections, make minor repairs, adjust operating parameters, operate oxyacetylene welding equipment, and perform oxyacetylene welding, brazing, and soldering operations.

WEL 1015 Autobody Welding & Cutting
(Previously WEL 115 Autobody Welding & Cutting)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 1021 Structural Welding I
(Previously WEL 121 Structural Welding I)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers theory and practice in oxy-acetylene processes with emphasis toward AWS welder qualification with mild steel electrode E-7018 welding in the horizontal and vertical position.

WEL 1022 Structural Welding II
(Previously WEL 122 Structural Welding II)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Continues WEL 1021 with final emphasis toward AWS welder qualification with mild steel electrode E-7018 qualification test in the 2G, 3GU, and 4G position.

WEL 1024 Gas Tungsten Arc Welding I
(Previously WEL 124 Gas Tungsten Arc Welding I)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers Gas Tungsten Arc Welding (GTAW) operations in various positions and joint designs.

WEL 1025 Introduction to Gas Metal Arc Welding
(Previously WEL 125 Introduction to Gas Metal Arc Welding)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 1030 Maintenance Welding
(Previously WEL 130 Maintenance Welding)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Gives the student a basic understanding of the Oxyacetylene cutting and Arc welding processes, and introduction to the skills and techniques used to develop fillet and groove welds. Students will be introduced to oxyacetylene, shielded, gas metal arc welding equipment set up, and various welding techniques. Safety will be stressed during the course.

WEL 1080 Internship
(Previously WEL 180 Internship)
1-4 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Note: Must have faculty consent to enroll
Meets the needs of the student in selected specialized area in a work-based environment. Individualized instruction at the job site will be set up based on student's interest and instructor approval.

WEL 2000 Advanced CAD/CAM Cutting Processes
(Previously WEL 200 Advanced CAD/CAM Cutting Processes)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers designing and generating images using Mastercam Cad software. Student will be able to cut developed images/parts using Koike Monograph CNC Plasma cutting table. Student should be familiar with basic metallurgy pertaining to the plasma cutting of metals and safety in the welding industry.

WEL 2005 Introduction to Ornamental Iron
(Previously WEL 205 Introduction to Ornamental Iron)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Must have Instructor permission to enroll
Covers designing, drawing, and fabricating a welded project. Student will demonstrate their ability to use (in a practical application) previously learned techniques using different welding processes.

WEL 2024 Gas Tungsten Arc Welding II
(Previously WEL 224 Gas Tungsten Arc Welding II)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers Gas Tungsten Arc Welding (GTAW) operations utilizing a variety of base metals and advanced joint designs.

WEL 2025 Advanced Gas Metal Arc Welding
(Previously WEL 225 Advanced Gas Metal Arc Welding)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
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 2030 Pipe Welding I
(Previously WEL 230 Pipe Welding I)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers pipe welding operations utilizing the Shielded Metal Arc Welding (SMAW) process in a variety of positions on carbon steel.

WEL 2031 Pipe Welding II
(Previously WEL 231 Pipe Welding II)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Covers pipe welding operations utilizing processes and positions.

WEL 2040 Pipe Welding Certification
(Previously WEL 240 Pipe Welding Certification)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Introduces theory and practice in modern welding methods of pressure pipeline and pipe systems. Emphasis toward welder qualification under various codes.

WEL 2050 Layout & Fabrication
(Previously WEL 250 Layout & Fabrication)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Develops welding and associated skills in metal fabrication.

WEL 2063 Applied Metal Properties
(Previously WEL 263 Applied Metal Properties)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Instructor approval required
Introduces the study of metal properties, hardness testing, heat treatment, cold working microscopic examination, and application of common commercial alloys in industry.

WEL 2064 Creative Welding
(Previously WEL 264 Creative Welding)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Instructor approval required
Introduces design and construction of welded sculptures with the use of different fabrication techniques. This course includes uses of different metalworking machines, hot and cold working practices, and demonstration of coloring and texturing metal.

WEL 2080 Internship
(Previously WEL 280 Internship)
1-4 Credit Hours • Per Credit Hour, 45 Contact Hours (Internship)
Note: Must have faculty consent to enroll
Offers individualized instruction at job site. The student is encouraged to develop skills needed to enter employment in the welding industry.

WEL 2089 Capstone
(Previously WEL 289 Capstone)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Note: Must have faculty consent to enroll
Demonstrates culmination of learning within a given program of study.

Women and Gender Studies Courses

WST 2000 Introduction to Women's Studies: SS3
(Previously WST 200 Introduction to Women's Studies: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores the interdisciplinary field of women's studies. This course is an examination of the following topics: the historical basis of gender inequality; the history of social movements for gender equality and women's studies; women's achievements throughout history in various professional and academic fields; women's social, economic, religious, health and political status in the U.S. and around the globe; gender relations; intersectionality; cultural, media and artistic representations of women.

WST 2100 Women & Social Action: SS3
(Previously WST 225 Women & Social Action: SS3)
3 Credit Hours • 45 Contact Hours (Lecture)
Prerequisite: College Readiness in English
Explores the role of the systems of oppression in society and avenues available to create both individual and collective change through social action. Awareness of agency to enact change and become empowered are highlighted in the course. Informed by intersectional feminist pedagogy, this course explores issues of diversity including, but not limited to race, class gender, age, and disability.

Zoo Keeping Courses

ZOO 1010 Introduction to Captive Animal Management
(Previously ZOO 101 Introduction to Captive Animal Management)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Introduces the science utilized in the field of animal management. Incorporates terminology, protocols and procedures, governing bodies, career development, and dealing with public relations. This course examines the taxonomic hierarchy of how the natural world is arranged and how various taxa are organized in the scientific community.

ZOO 1020 Biodiversity & Conservation
(Previously ZOO 117 Biodiversity & Conservation)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Introduces concepts relating to the conservation of the natural world. This course examines biodiversity and the relationships between animals and their environment. This course explores the environmental, political, economic, and sociological issues relating to the loss of biodiversity on the planet as well as efforts in place to be implemented by zoos and conservation organizations to counter those effects.

ZOO 1030 Animal Behavior
(Previously ZOO 107 Animal Behavior)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Provides a brief history of ethology, forms of animal communication, the sensory world of animals, programmed vs. learned behavior, navigation, and mating behaviors. Students will be given an in-depth look at how animal behavior is affected by a zoo environment and how to correct stereotypic behaviors that are often seen in captive animals.

ZOO 1040 Introduction to Animal Training
(Previously ZOO 103 Introduction to Animal Training)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Teaches the basics of classical and operant conditioning and the shaping of animal behavior in a captive setting. This course provides the information and tools on how to develop and implement training programs and condition behavior. This course concentrates on the utilization of positive reinforcement techniques and troubleshoots training challenges. This course explores advances in the use of training during public demonstrations.

ZOO 1041 Animal Training
(Previously ZOO 104 Animal Training)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Teaches the basics of classical and operant conditioning and the real-world application of shaping animal behavior in a captive setting. Provides the information and tools on how to develop and implement training programs and condition behavior. Concentrates on the utilization of positive reinforcement techniques and troubleshoots training challenges. Explores advances in the use of training during public demonstrations.

ZOO 1080 Zoo Keeping Internship I
(Previously ZOO 180 Zoo Keeping Internship I)
5 Credit Hours • 225 Contact Hours (Internship)
Note: Minimum GPA 3.0
Grading: P/F only
Provides hands-on work experience at an approved animal care facility. Introduces the student to animal care standards as required by the USDA and AWA. Student will become competent in the care of the animals studied within each internship. Requires a 2.8 GPA.

ZOO 1081 Zoo Keeping Internship II
(Previously ZOO 181 Zoo Keeping Internship II)
5 Credit Hours • 225 Contact Hours (Internship)
Note: Minimum GPA 3.0
Grading: P/F only
Provides hands-on work experience at an approved animal care facility. Expands on the knowledge and skills learned in ZOO 1080 and the student will demonstrate an increased ability to apply those learned skills. Student will become competent in the care of the animals studied within each internship. Internship may be performed at the same facility or a different facility as ZOO 1080. Requires a 2.8 GPA.

ZOO 1110 Advanced Exhibitory Techniques
(Previously ZOO 200 Advanced Exhibitory Techniques)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Requires successful completion of the Exhibit Design for Zoo Keepers course. Students will apply practical basics of keeper level exhibit design and renovations. Students will develop and implement changes within an existing or new exhibit using hands-on techniques and applications. Students will gain an understanding of the dynamics of building an exhibit that meets both animal needs and enables proper husbandry. Students will learn skills that enable them to construct exhibits and design components that can be incorporated into animal exhibits.

ZOO 1210 Exhibit & Horticulture Design for Zoo Exhibits
(Previously ZOO 206 Exhibit & Horticulture Design for Zoo Exhibits)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Design zoo habitats to include plant and animal specimens. Students will plan, interpret, construct, and enrich animal enclosures according to individual animal needs. Students will propagate and care for plants that will become key components for animal enclosures.

ZOO 1310 Zoonotic Preventative Medicine
(Previously ZOO 145 Zoonotic Preventative Medicine)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Covers zoonotic preventative medicine and veterinary zookeeping concepts and techniques. Supplies a working knowledge of a keeper's role in exotic animal care and medicine, including the importance of nutrition. This course introduces common diseases and parasites that affect a variety of exotic animals as well as how to treat and prevent those illnesses.

ZOO 1320 Veterinary Zookeeping
(Previously ZOO 215 Veterinary Zookeeping)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Explores a wide variety of topics including but not limited to quarantine procedures, immobilization, zoonotic disease, and other important aspects of veterinary animal management.

ZOO 1410 Invertebrate Zoology
(Previously ZOO 155 Invertebrate Zoology)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Explores the diversity of invertebrate species and the complex interactions with their environments. Examines the principles of ecology, evolution, classification, structure, and function in invertebrate species.

ZOO 1510 Fish Husbandry & Aquaria Management
(Previously ZOO 245 Fish Husbandry & Aquaria Management)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Studies fish biology in relation to captive care and management. This course compares captive and wild populations and the differences and correlations between them. This course provides a working knowledge of the care of aquatic life, including management of closed systems and the process in which proper water quality parameters are maintained.

ZOO 1610 Herpetology
(Previously ZOO 165 Herpetology)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Explores the diversity of reptile and amphibian species. This course examines the principles phylogenetics, the origin and evolution of amphibians and reptiles, the global diversity of these taxa, and their biogeography, biology, ecology, and conservation.

ZOO 1710 Bird Husbandry
(Previously ZOO 115 Bird Husbandry)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Teaches bird biology and husbandry and supplies the student with a working knowledge of the captive care and management of birds. Students will also study the human impacts on wild bird populations and the resulting conservation initiatives.

ZOO 1810 Mammal Husbandry
(Previously ZOO 125 Mammal Husbandry)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Studies mammalian biology and husbandry and creates a working knowledge of the captive care and management of mammals. Students will also study taxonomy, reproductive physiology, preventative medicine, animal nutrition, capture and restraint,

population management, enrichment, and zoo-based conservation initiatives. Compares captive and wild populations and the differences and correlations between them.

ZOO 1811 Ungulates-The Hoofed Mammals
(Previously ZOO 111 Ungulates-The Hoofed Mammals)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Exclusively explores the ungulates, in both the wild and captive settings. This intensive course will provide the student with a working knowledge of the care, management, and conservation of hoofed mammals.

ZOO 1812 Pachyderms: Hippos, Rhinos & Elephants
(Previously ZOO 113 Pachyderms: Hippos, Rhinos & Elephants)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: ZOO 1810 recommended, but not required
Explores the natural history and conservation of pachyderms. Evaluate husbandry requirements for housing pachyderms in a captive setting.

ZOO 1813 Primates: Prosimians and Monkeys
(Previously ZOO 102 Primates: Prosimians and Monkeys)
3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)
Studies captive and wild populations of "lesser" primates with regards to taxonomy, biology, morphology, adaptations, social groupings, husbandry, and conservation issues.

ZOO 1814 Apes
(Previously ZOO 122 Primatology: Captive Apes)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Explores lesser and great ape populations in both captive and wild habitats. Examines the roles zoos play in conservation initiatives for ape species. Discusses the impact apes have had on human culture. Reviews ape language studies and the ethics of housing apes in captivity.

ZOO 1815 Wild Cats-Conservation & Management
(Previously ZOO 110 Wild Cats-Conservation & Management)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Explores the Family Felidae, in both the wild and captive settings. This intensive course will provide the student with a working knowledge of the care, management, and conservation of felids.

ZOO 1816 Wild Canids
(Previously ZOO 114 Wild Canids)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Note: ZOO 1810 recommended, but not required
Explores the care and management of the Family Canidae in both captive and wild settings. Challenges in conservation efforts for animals that are both feared and revered as well as human-canine conflicts will be extensively explored.

ZOO 1817 Bats: An Introduction
(Previously ZOO 120 Bats: An Introduction)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Explore why bats, representing 20 percent of all mammalian species, are still misunderstood and maligned. This class will demystify bats as well as give students a new appreciation for this umbrella species. Wild populations and husbandry of captive populations will be covered.

ZOO 1818 Elephants: An Introduction
(Previously ZOO 112 Elephants: An Introduction)
1 Credit Hours • 15 Contact Hours (Lecture)
Explore the natural history of the two current living genera of elephants, their status in the wild and status in captivity. Discover the challenges and conservation efforts both in the wild populations and in captive settings being made to save these animals. Elephant anatomy and physiology will be explored as well as the basics of captive husbandry techniques.

ZOO 2040 Animal Training in Action
(Previously ZOO 203 Animal Training in Action)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
This course is designed for hands-on application of training techniques and principles. Requires a live animal training subject for implementation of training skills.

ZOO 2080 Zoo Keeping Internship III
(Previously ZOO 280 Zoo Keeping Internship III)
5 Credit Hours • 225 Contact Hours (Internship)
Note: Minimum GPA 3.0
Grading: P/F only
Provides hands-on work experience at an approved animal care facility. Expands on the knowledge and skills learned in ZOO 1080 and ZOO 1081. Student will demonstrate an increased ability to apply those learned skills. Student will become competent in the care of the animals studied within each internship. Internship may be performed at the same facility or a different facility as ZOO 1080 and ZOO 1081. Requires a 2.8 GPA.

ZOO 2081 Internship – Abroad
(Previously ZOO 281 Internship – Abroad)
5 Credit Hours • 225 Contact Hours (Internship)
Grading: P/F only
Provides work experience at a pre-approved facility. The student will become competent in the care of the animals within a specified area of study.

ZOO 212 Elephant Management
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Expand on knowledge of applicable husbandry skills, equipment types, and handling techniques. Experience the physical and mental demands and building structures required to manage elephants in captive environments. Learn about daily routines that are preformed, such as, cleaning, feeding, training, enrichment, and health maintenance through hands on experience at two elephant facilities.

ZOO 2410 Aquatic & Terrestrial Invertebrate Husbandry
(Previously ZOO 255 Aquatic & Terrestrial Invertebrate Husbandry)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Studies invertebrate biology in relation to captive care and management. This course compares captive and wild populations and the differences and correlations between them. This course provides a working knowledge of the care of aquatic and terrestrial life, including management of large population invertebrate collections.

ZOO 2610 Reptile & Amphibian Husbandry
(Previously ZOO 265 Reptile & Amphibian Husbandry)
4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)
Studies herpetology as it relates to the housing of captive herptiles and the conservation of wild ones. This course includes hands-on experience with the proper care and handling of a range of herptiles to include snakes, lizards, turtles, and amphibians.

ZOO 2710 Avian Conservation
(Previously ZOO 267 Avian Conservation)
2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)
Focuses on avian conservation concerns and efforts globally and locally to include local bird conservation projects, hands-on training, experience and networking with conservation organizations and individuals in the field of ornithology.

COLLEGE ADMINISTRATIVE STAFF

Officers of the College

President	Lance Bolton
Chief of Staff	Jim Mancall
Vice President for Administrative Services	Darlene Melby
Vice President for Human Resource Services	Kim Hennessy
Vice President for Instructional Services	Jacquelyn Gaiters-Jordan
Vice President for Student Services	Homer Wesley
Executive Director of Institutional Effectiveness	Patricia Diawara
Executive Director of Marketing and Communications	Warren Epstein
Executive Director, Foundation	Lisa James
Chief Diversity Officer	Tiko Hardy

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Ms. Rebecca Decker, Member

FACULTY & STAFF

ABITBOL, Elizabeth
Laboratory Coordinator I, Division of Natural & Physical Sciences

ACEVEDO, Emily, B.S., Liberty University, 2014
Enrollment Services Specialist, Admissions, Recruitment, & Enrollment Services

ACRES, Harley, M.A., University of Alabama, 2007
Faculty of Art, Division of Communications, Humanities & Technical Studies

ADDINGTON, Pamela
Employment Coordinator, Human Resource Services

AGGEN, Teresa, M.A., Stephen F. Austin State University, 1991
Associate Professor of English, Division of Math & English

AGNEW, Jason
Grounds & Nursery I, Facilities & Operations

AGUERO, Theresa L.
Office Manager I, Division of Natural & Physical Sciences

AHMAD, Tara, B.S., Colorado Technical University, 2013
Vocational Credentials
Assistant to the Dean of Medical Sciences, Division of Medical Sciences

AKCADOGAN, Mustafa, M.B.A., Colorado Technical University, 2009
Vocational Credentials
IT Projects Manager, Information Technology Support Services

AKLIGBE, Akossiwa
Custodian II, Facilities & Operations

AKSE, Kristian, B.A., Carleton College, 1993
Vocational Credentials
Faculty of Multimedia Graphic Design, Division of Communications, Humanities & Technical Studies

ALI, Shazia, B.MUS., University of Denver, 2011
Faculty of Music, Division of Communications, Humanities & Technical Studies

ALLEN-LUTZ, Jessica, B.A., University of Colorado, 2016
Enrollment Services Specialist, Admissions, Recruitment, & Enrollment Services

ALVARAN, Reginald
Custodian I, Facilities & Operations

ANDERSON, Ginger, M.S., University of Colorado, 2006
Associate Professor of Mathematics, Division of Math & English

ANDERSON, Miki, M.A., West Virginia University, 2005
Associate Professor of Economics, Division of Business, Public Service & Social Sciences

ANDERSON, Tracey
Administrative Assistant III, Admissions, Recruitment, & Enrollment Services

ANGRY, Rosaria, M.S., Troy University, 2004
Director of Instructional Support, Instructional Services

ANIBAS, Kyle, M.A., Kansas State University, 2014
Faculty of Geography, Division of Natural & Physical Sciences

ARMIJO, Marah
Administrative Assistant III, Admissions, Recruitment, & Enrollment Services

ARTIS, W. Wayne, M.A., University of Delaware, 1977
Professor of History, Division of Communications, Humanities & Technical Studies
Assistant to the VPIS for Transfer, Articulation & Advising

AUSTIN, Meghann, A.A.S., Pikes Peak State College, 2013
Assistant Coordinator of Administrative Services in Advising & Testing, Advising & Testing

AUSTIN, Neil, M.S., Colorado Technical University, 2015
Vocational Credentials
Faculty of Computer Networking, Cyber Security, Division of Business, Public Service, and Social Science

AVION, Janet
Associate Dean of High School Programs, High School Programs

BABIN, Dave
Student Services Specialist II, Financial Aid

BAGLEY, Joel, B.A., University of Arizona-Global, 2013
Manager, Auxiliary Services

BAKER, Connie, A.A.S., Pikes Peak State College, 2007
Administrative Assistant III, Accessibility Services

BAKER, Patricia
Administrative Assistant III, Records

BALDWIN, Carrie, M.A., Syracuse University, 2002
Professor of Mathematics, Division of Math & English

BALLOTTI, Kristin, D.V.M., Colorado State University, 1992
Vocational Credentials
Faculty of Veterinary Technology, Division of Natural and Physical Sciences

BARLOW, Carol
Administrative Assistant III, Division of Natural and Physical Sciences

BARRENTINE, James, B.S., Colorado Christian University, 1995
Vocational Credentials
Chief of Campus Police, Director of Emergency Management

BARRIERA, Nicole, B.S., Southern Nazarene University, 2022
Vocational Credentials
Associate Dean of Allied Health, Division of Medical Sciences

BARTON, Steven, B.A., Hiram College, 2014
IT & AV Technician, Information Technology Support Services

BAUER, Chad, A.A.S., Pikes Peak State College, 2005
Police Officer III, Campus Police

BAUER, Patricia
    Administrative Assistant II, Instructional Support

BEARER, Lora Anna
    Veteran Benefits Specialist, Military & Veterans Programs

BECCO, Jo Ellen, M.A., University of Iowa, 1994
    Faculty Director, High Impact Practices
    Professor of English, Division of Math & English

BECHTOLD, Barbara
    Administrative Assistant III, Records

BEDFORD, Nelene, B.A., Regis University, 2002
    Administrative Assistant III, Military & Veterans Programs

BEESLEY, Kimberley, A.A., Pikes Peak State College, 2015
    Accounting Technician II, Financial Services

BEN-AMOTS, Laura, M.F.A., The University of the Arts, 1992
    Professor of Art, Division of Communications, Humanities &
    Technical Studies

BEYER, Jill
    Accounting Technician IV, Financial Services

BHAGAT, Brook, M.F.A., Lindenwood University, 2016
    Assistant Professor of English, Division of Math & English

BICKNELL, Gail A., B.A., University of Maryland, 2011
    Assistant Director of Military & Veterans Programs, Military &
    Veterans Programs

BIDARI, Keshav, M.S., Southern Arkansas University, 2014
    Faculty of Computer Science, Division of Business, Public
    Service & Social Sciences

BJORKMAN, Sharon, Ph.D., Loyola University, 2004
    Professor of Sociology, Division of Business, Public Service &
    Social Sciences

BLAKE, Esther
    Custodian I, Facilities & Operations

BLOCK, Heidi
    Vocational Credentials
    Assistant Professor of Culinary Arts, Career Start, Division of
    Business, Public Service & Social Sciences

BOGNER, Gary, M.B.A., Baker College, 1996
    Vocational Credentials
    Faculty of Business, Division of Business, Public Service, and
    Social Science

BOLLING, Linda, A.A.S., Pikes Peak State College, 1993
    Library Technician II, Library

BOLTON, Lance, Ph.D., University of Georgia, 1997
    President
BOST, Megan
    Administrative Assistant III, Facilities & Operations

BOYD, David, M.MOAS., Air University, 2011
    Vocational Credentials
    Faculty of Emergency Service Administration, Division of
    Business, Public Service & Social Sciences

BRACE, Tobias, M.S.N., Walden University, 2014
    Vocational Credentials
    Assistant Professor of Nursing, Division of Medical Sciences

BRATSCHI, Christopher, J.D., Thomas M. Cooley Law School, 1990
    Vocational Credentials
    Professor of Paralegal, Division of Business, Public Service &
    Social Sciences

BREITBEIL, Cristal, M.B.A., University of Colorado, 2006
    Vocational Credentials
    Faculty of Accounting, Division of Business, Public Service &
    Social Sciences

BRINSON, Lorinda
    Coordinator of Administrative Services, Advising & Testing

BROWN, Aaron
    Vocational Credentials
    Faculty of Diesel Power Mechanics, Division of
    Communications, Humanities & Technical Studies

BROWN, Naomi, A.G.S., Pikes Peak State College, 2008
    Administrative Assistant III, Admissions, Recruitment, &
    Enrollment Services

BROWNRIGG, Julie
    Administrative Assistant III, High School Programs

BULLOCK, Nekedra, M.S., Mississippi University for Women, 2011
    Lead Coach, Academic Resources

BURGESS, Parker
    General Labor I, Facilities & Operations

BURKS, Jordan
    Administrative Assistant II, Division of Natural & Physical
    Sciences

BYNUM, Tina, D.M., Colorado Technical University, 2016
    Vocational Credentials
    Associate Dean of Law, Public Safety, & Human Services,
    Division of Business, Public Service & Social Sciences

CABELLO, Andrea
    Program Assistant I, Career Services

CAFFEE, Kelly, M.Ed., Grand Canyon University, 2018
    Advantage Student Success Program Specialist Coach,
    Academic Resources Division

CALLIHAN, Kristy, M.A., Texas Tech University, 1994
    Faculty of Humanities, Division of Communications, Humanities
    & Technical Studies

CAMPBELL, Majel, M.A., University of Georgia, 2005
    Faculty of Spanish, Division of Communications, Humanities &
    Technical Studies

CAMPBELL, Rachael, M.A., Antioch University, 1997
    Director of New Student Orientation & Strategic Student
    Services Initiatives, Vice President for Student Services

CANTU, Antonio
    Police Officer I, Campus Police

CARPENTER, Richard, A.O.S., The Culinary Institute of America, 1985
Vocational Credentials
Assistant Professor of Culinary Arts, Division of Business, Public Service & Social Sciences

CASH, Charles
Custodian II, Facilities & Operations

CASTRO, Megan, B.A., Colorado State University, 2012
Coordinator of New Student Orientation, Retention Services

CATES, David, B.S., University of Northern Colorado, 2003
Vocational Credentials
Assistant Professor of Fire Science, Division of Business, Public Service & Social Sciences

CHAN, Dianne, M.S., University of Illinois, 1991
Default/Debt Management Advisor, Financial Aid

CHARFAUROS, Kristina
Administrative Assistant III, Student Life

CHASE, Lynn, J.D., Chicago Kent College of Law, 1973
Vocational Credentials
Professor of Paralegal, Division of Business, Public Service & Social Sciences

CHO, Moses
Police Officer I, Campus Police

CHRISTENSEN, Richard, M.S.W., University of Southern Indiana, 2022
Access Specialist, Accessibility Services

CISNEROS, Daniel, B.S., Colorado State University, 2015
Application Developer, Information Technology Support Services

CLAYCOMB, Michael
Veteran Benefits Specialist, Military & Veterans Programs

CLUSKEY, Daniel, M.S., University of Illinois, 2016
IT & AV Technician, Information Technology Support Services

COELHO, Elizabeth, M.S., San Diego State University, 2008
Faculty of Astronomy, Division of Natural & Physical Sciences

COKE-CLARK, Lorraine, M.S., Capella University, 2009
Faculty of Advancing Academic Achievement, Division of Math & English

COLLINS, Stephen, Ph.D., Northwestern University, 2001
Professor of Communication, Division of Communications, Humanities & Technical Studies

CONRAD, Martin, M.A., University of Colorado, 2009
Assistant Professor of Humanities, Division of Communications, Humanities & Technical Studies

CONTRERAS, Mona, M.S.C., University of Phoenix, 2009
Faculty of Advancing Academic Achievement, Department of Math & English

COOK, Seth, B.S., Purdue University Global, 2018
IT Network Analyst, IT Support Services

COOKS, Keyshon, B.A., Colorado State University, 2019
Recruitment & Admissions Specialist, Admissions, Recruitment, & Enrollment Services

CORCORAN, Abby, M.S.Ed., University of Kansas, 2009
Assistant Director of Instructional Support for Perkins, Instructional Support

CORDOVA, Margaret, M.A., University of Colorado, 2004
Faculty of English as a Second Language, Division of Math & English

CORN, Leland, A.A.S., Pikes Peak State College, 1996
Vocational Credentials
Faculty of Welding, Career Start, Division of Communications, Humanities & Technical Studies

CORNELIUS, Belenda, M.A., University of Colorado, 1992
Counseling & Human Services Certification
Recruitment & Admissions Specialist, Admissions, Recruitment, & Enrollment Services

CORNISH, Amy, M.A., Colorado State University, 2000
Faculty of French, Division of Communications, Humanities & Technical Studies

COSTANDINE, Nadine, M.S.N., University of Texas, 2017
Vocational Credentials
Nursing Simulation Lab Coordinator, Division of Medical Sciences

COWARD, Vendetta
Custodian I, Facilities & Operations

CRAINE, Shannan, B.A., University of Colorado, 2021
Enrollment Services Specialist, Admissions, Recruitment, & Enrollment Services

CRAWFORD, Herman, Ed. D., Capella University, 2017
Vocational Credentials
Faculty of Hospitality, Division of Business, Public Service, and Social Science

CRUZ, Kenda, A.A.S., Pikes Peak State College, 2018
AHA Training Center Coordinator, Division of Natural & Physical Sciences

CUNNINGHAM, Casey
Structural Trades III, Facilities & Operations

CUSHMAN, Ann, Ph.D., Colorado State University, 2001
Professor of Mathematics, Division of Math & English

DAUM, Jillian, B.S., University of Colorado, 2022
COSI Grant Program Specialist Coach, Academic Resources

DAVIES, Benjamin, M.F.A., Ohio University, 2000
Associate Dean of Humanities, Division of Communications, Humanities & Technical Studies

DAY, Kimberly G., A.A.S., Pikes Peak State College, 1997
IT Technician, Information Technology Support Services

DECECCO, Paul, M.A., University of New Mexico, 1998
Director of Military & Veterans Programs

DECH, Debra, A.A., Pikes Peak State College, 2006
Administrative Assistant III, Admissions, Recruitment, & Enrollment Services

DESPAIN, Heather
Program Assistant I, Military & Veterans Programs

DEVAUX, Jason, J.D., Washington & Lee University, 1998
Vocational Credentials
Professor of Criminal Justice, Division of Business, Public Service & Social Sciences

DEWALD, Marian
Accounting Technician III, Financial Services

DEWALL, Jeremy
EMS Medical Director, Division of Medical Sciences

DIAS, Elsa, Ph.D., Purdue University, 2004
Professor of Political Science, Division of Business, Public Service & Social Sciences

DIAS, Jason, Psy.D., University of the Rockies, 2010
Associate Professor of Psychology, Division of Business, Public Service & Social Sciences

DIAWARA, Patricia, Ph.D., University of Lorraine, 1999
Executive Director of Institutional Effectiveness

DIMAS, Issac
Custodian I, Facilities & Operations

DUGARD, Tamara, M.S.N., Grand Canyon University, 2021
Vocational Credentials
Faculty of Nursing, Division of Medical Sciences

DUMAINE, Pamela, M.A., Colorado Christian University, 2011
Faculty of Math, Division of Math & English

EDIE-KORLESKI, Montserrat, Ph. D., University of North Texas, 2004
Dean, Division of Medical Sciences

ELLIS, Carl
Manager of Audio Visual Services, Information Technology Support Services

ELTHORP, Michele A., A.S., Pikes Peak State College, 1997
Human Resources Coordinator, Human Resource Services

EMERY, Katherine, M.S.N., Vanderbilt University, 2011
Vocational Credentials
Faculty of Nursing, Division of Medical Sciences

EPSTEIN, Warren, B.A., University of South Florida, 1982
Executive Director of Marketing & Communications

ERICKSON, Eric, M.A., Southern New Hampshire University, 2014
Faculty of English, Division of Math & English

ESPINOSA, Jose
Custodian I, Facilities & Operations

EVANS, Misty
Program Advisor, Advising & Testing

EVERETT, Jami, A.G.S., Pikes Peak State College, 2013
Network Operations Manager, Information Technology Support Services

EWING, Kevin, M.S., University of Colorado, 2013
Professor of Mathematics, Division of Math & English

FARRAR, Shae L., B.A., Regis University, 2005
Assistant Director of Budget Services, Business Services

FILIPIAK, Amy, M.P.A., University of Colorado, 2009
Associate Professor of Geography, Division of Natural & Physical Sciences

FINLEY, Priscilla
Faculty Pay & Event Scheduling Coordinator, Instructional Support

FLYNN, William
Technician III, Military & Veterans Programs

FORAND, Emily, M.A., New Mexico State University, 2006
Associate Professor of English, Division of Math & English

FOSTER, Rick, Ph.D., University of Colorado, 1996
Faculty of Political Science, Division of Business, Public Service & Social Sciences

FRANKMORE, David, B.A., Adams State University, 1989
Vocational Credentials
Faculty of Carpentry & Construction, Division of Communications, Humanities & Technical Studies

FRASER-MILLS, Michelle, B.S., Colorado State University, 1987
Director of Financial Services/Controller

FRAZIER, Christopher
Custodian I, Facilities & Operations

FRAZIER, Steve
Custodian I, Facilities & Operations

FREDRICKSEN, Robert, B.S., Virginia Technical College, 2015
eLearning Technologist, eLearning

FROST, April, M.A., University of Arizona, 2007
Vocational Credentials
Faculty of Cyber Security, Division of Business, Public Service & Social Sciences

FULLER, Erica
Administrative Assistant III, Admissions, Recruitment, & Enrollment Services

GACCETTA-SHARP, Christine, B.S., Fort Hays State University, 2019
Vocational Credentials
OER Coordinator/Course Designer, eLearning

GAITERS-JORDAN, Jacquelyn, M.A., University of Colorado, 2005
Vice President for Instructional Services

GALLEGOS, Lonnie
Custodian II, Facilities & Operations

GARCIA, Amanda
Laboratory Technology I, Division of Medical Sciences

GARCIA, Sylvia, B.A., University of Denver, 1974
Director of Career Services

GARRETT, Barbara, Ed.D., Nova Southeastern University, 2006
Professor of Advancing Academic Achievement, Division of Math & English

GARRETT, Julie
Police Officer I, Campus Police

GASTEIGER, Joe, M.S., University of Colorado, 2017
Faculty of Physics, Division of Natural & Physical Sciences

GELLENBECK, James, B.S., Colorado State University, 2013
Director of Procurement, Procurement

GENDRON, Dawn
Marketing Projects & Operations Manager. Marketing & Communications

GENSCHORCK, Laura A., A.G.S., Pikes Peak State College, 1995
Human Resources Specialist II, Human Resource Services

GERTH, Carolynn, A.A.S., Pikes Peak State College, 2003
Accounting Technician III, Procurement

GILES, Billie Jo, M.A., University of North Florida, 2016
Assistant Professor of English, Division of Math & English

GILSON, Richard, B.S.B., Murray State University, 2015
Vocational Credentials
Faculty of Computer Information Systems, Division of Business, Public Service & Social Sciences

GONZALES, Karyn
Laboratory Technology I, Division of Medical Sciences

GOYA, Kourtney
Assistant Director of Concurrent Enrollment, High School Programs

GRACE, Gayle, B.Mus., Friends University, 1974
Assistant Professor of Music, Division of Communications, Humanities & Technical Studies

GREEN, Christine, B.A., University of Maryland, 1999
Advantage Student Success Program Specialist Coach, Academic Resources

GREGORY, Dana, M.P.H., George Washington University, 2020
Vocational Credentials
Faculty of Physical Therapy Assistant, Division of Medical Sciences

GRIMM, Steven "Jack", B.S., University of Wisconsin, 1988
Program Advisor, Advising & Testing

GRIPPO, Steven, B.A., University of Colorado, 2007
Assistant to the Dean of Math & English, Division of Medical Sciences

GRUSING, Barbara, A.A., Pikes Peak State College, 1992
Payroll Manager, Financial Services

GRUSZKOWSKI, April "Renee", B.A., George Mason University, 2009
Application Developer, Information Technology Support Services

GUAJARDO, Jennifer, M.A., University of Colorado, 2017
Program Advisor, Advising & Testing

GUTIERREZ LOPEZ, Fabiola, M.A., Cal Poly, 2016
Program Advisor, Advising & Testing

GUTSCHICK, James, B.A., Hastings College, 1999
Vocational Credentials
Faculty of Fire Science, Division of Business, Public Service & Social Sciences

GUY, Andre, A.A.S., Pikes Peak State College, 2021
Program Specialist Coach, Academic Resources

HADDON, Greg, A.A., Los Angeles Community College District, 1984
Vocational Credentials
Faculty of Architecture & Construction Technology, Division of Communications, Humanities & Technical Studies

HALVORSEN, Kjersten, M.A., Colorado Christian University, 2009
Associate Professor of Psychology, Division of Business, Public Service & Social Sciences

HANS, Ashleigh
Administrative Assistant III, Records

HARDY, Tiko, LSW, Psy.D., University of the Rockies, 2014
Chief Diversity Officer of Equity and Inclusion, Office of the President

HARRIS, Chelsy, M.Ed., Xavier University, 2005
Associate Vice President of Strategic Partnerships, Vice President for Instructional Services

HARRIS, Yolanda, M.A., University of Northern Colorado, 2003
Director of Counseling Center

HARVEY, Sandi, M.A., Wichita State University, 2010
Associate Professor of Anthropology, Division of Business, Public Service & Social Sciences

HAZEL-DESTEFANO, Jeannie, A.A.S., Pikes Peak State College, 1998
Vocational Credentials
Program Assistant I, Accessibility Services

HECKEL, Lisa, B.S., Colorado State University, 1987
Clinical Coordinator, Division of Medical Sciences

HENNESSY, Kim, J.D., University of Cincinnati, 1977
Vice President for Human Resource Services

HERNANDEZ, Nicholas
Police Officer I, Campus Police

HERRERA, Christopher
Grounds & Nursery II, Facilities & Operations

HILL, Carla
Administrative Assistant III, Records

HILL, Tamika, B.S.B., University of Colorado, 2015
Payroll Specialist, Financial Services

HILLYER, Audrey, M.A., DePaul University, 2004
Associate Dean of English, Division of Math & English

HINO, Gary, A.A.S., Pikes Peak State College, 2007
Vocational Credentials
Faculty of Culinary Arts, Division of Business, Public Service & Social Sciences

HODGE, Michele, M.B.A., University of Colorado, 2015
Associate Vice President for Human Resource Services, Human Resource Services

HOLECKOVA, Iveta, M.S., Utica College, 2005
Vocational Credentials
Faculty of Computer Science, Division of Business, Public Service & Social Sciences

HOLLING-MORRIS, Cynthia, M.A., California State University, 2003
Vocational Credentials
Faculty of Photography, Division of Communications, Humanities & Technical Studies

HOLMES, Jennifer, M.S., University of Colorado, 2010
Assistant Professor of Mathematics, Division of Math & English

HOLMES MOTTERLE, Susi
Assistant to the Vice President, Instructional Services

HOLZWARTH, Ryan
Police Officer I, Campus Police

HOPPER, Tarasa
Administrative Assistant III, Library

HORTON, Gary, M.S.C.J.A., Columbia Southern University, 2017
Vocational Credentials
Assistant Professor of Law Enforcement Services, Division of Business, Public Service & Social Sciences

HOWELL, Dionne, M.F.A., School of the Art Institute of Chicago, 2008
Associate Professor of English, Division of Math & English

HUDGENS, Kevin, M.P.A., University of Colorado, 2015
Director of Admissions, Admissions, Recruitment, & Enrollment Services

HUDSON, Robert, M.A., Ashford University, 2014
Vocational Credentials
Dean, Business, Public Service & Social Sciences

HUGHES, Ernest, M.B.A., Colorado Technical University, 2016
Computer Assisted Instruction Lab Coordinator, Information Technology Support Services

HULL, Misty, M.A., Colorado Christian University, 2001
Professor of Psychology, Division of Business, Public Service & Social Sciences

HUMPHREY, Michael
Student Services Specialist II, Financial Aid

HUSS, Susan
Administrative Assistant III, Advising & Testing

HYDE, ReeAnn, M.A., Fuller Theological Seminary, 1997
Instructional Liaison, Advising & Testing

IZOLD, Colleen
Administrative Assistant II, Advising & Testing

IZOLD, Mark, M.S., Ohio State University, 1993
Professor of Geology, Division of Natural & Physical Sciences

JACKSON, Ilah, B.S., University of New Mexico, 2000
Vocational Credentials
Faculty of Interpreter Prep Program, Division of Communications, Humanities & Technical Studies

JACOBSON, Chad, A.A.S., Pikes Peak State College, 2006
Sales Manager I, Bookstore

JAMES, Kayla, M.Acc, Auburn University, 2019
Assistant Controller, Financial Services

JANOS, Marcia, B.S., Oakland University, 1989
Vocational Credentials
Faculty of Pharmacy Technician, Division of Medical Sciences

JARAMILLO, Larry
Materials Handler I, Division of Communications, Humanities & Technical Studies

JENTZEN, Monique, A.A., Pikes Peak State College, 2019
Advising & Testing Call Center Specialist, Advising & Testing

JIMENEZ, Davina
Student Services Specialist II, Financial Aid

JOHNS, Jennifer, M.S., Capella University, 2011
Vocational Credentials
Faculty of Early Childhood Education, Division of Business, Public Service, & Social Science

JOHNSON, Christine, B.S., Colorado Christian University, 2008
Clinical Coordinator, Division of Medical Sciences

JOHNSON, Kendra
Administrative Assistant III, Records

JOHNSON, Kristen, M.S.Ed., Purdue University, 2003
Dean, Division of Natural & Physical Sciences

JOHNSON, Kristofor, B.A., University of Colorado, 2001
Vocational Credentials
Faculty of Fire Science, Division of Business, Public Service & Social Sciences

JOHNSON, Mark
Police Officer III, Campus Police

JOHNSON, Rhonda, M.B.A., University of Phoenix, 2010
Assistant Director, Financial Aid for Compliance & Fraud, Financial Aid

JONAS-MORRISON, Carol, M.S., New Mexico Institute of Mining & Technology, 1993
Professor of Mathematics, Division of Math & English

JONES, Catherine "Cici", A.A.S., Pikes Peak State College, 2008
Student Services Specialist II, Financial Aid

JONES, Robert Brian
Audio Visual Systems Analyst, Information Technology Support Services

JORDAN, Althea, Ph. D., Northcentral University, 2016
Vocational Credentials
Faculty of Early Childhood Education, Division of Business, Public Service, & Social Science

KAMILAR, Cindy, Ph.D., University of Miami, 1993
Professor of Psychology, Division of Business, Public Service & Social Sciences

KAMINSKY, Brandy, B.A., University of Colorado, 2021
Recruitment & Admissions Specialist, Academic Resources

KEEL, Kathie
Learning Specialist, TRIO Student Support Services

KELLEY, Alfrado
Custodian I, Facilities & Operations

KILGORE, Doyle
Police Officer I, Campus Police

KING, Mark, M.A., New Mexico State University, 1998
Professor of English, Division of Math & English

KIRKLAND, Kimberly
Vocational Credentials
Faculty of Medical Office Technology, Division of Medical Sciences

KNIPP, Janae, M.A., SIT Study Abroad SIT Graduate Institute, 2018
Bilingual Recruitment & Admissions Specialist, Admissions, Recruitment, & Enrollment Services

KNUDTZON, Jessica, B.A., University of California, 2010
Assistant Director of Foundation, Foundation

KOBES-NEWCOMB, Stephanie, M.F.A., University of Colorado, 2010
Faculty of Dance, Division of Communications, Humanities & Technical Studies

KOLTUN, Brook, M.S., Colorado State University, 2016
Director of Advising & Testing, Advising & Testing

KOSTER, Michele, A.A.S., Pikes Peak State College, 2005
Vocational Credentials
Faculty of Computer Aided Drafting-Mechanical, Division of Communications, Humanities & Technical Studies

KOVALY, Karen, B.A., University of Connecticut, 1986
Communications Coordinator, Marketing & Communication

KRAFT, Brandi, M.S., University of North Dakota, 1993
Student Success Coach, Academic Resources

KRAKOW, Robert
Director of Cyber Security, Division of Business, Public Service & Social Sciences

KRUGER, Cecilia, A.A.S., Pikes Peak State College, 2003
Administrative Assistant III, Division of Math & English

KRUGLY, Michael, B.A., University of California, 2010
Collections Specialist, Financial Services

KRUTSINGER, Cynthia, M.A., University of Colorado, 2006
Director of eLearning, eLearning

KUHN, William, M.A., University of Houston, 2016
Faculty of Mathematics, Division of Math & English

KURKOWSKI, Carol, Ph.D., Northcentral University, 2016
Vocational Credentials
Professor of Business, Division of Business, Public Service & Social Sciences

LABATE, Fabrizio, M.S., Colorado Technical University, 2013
Assistant Chief Technology Officer, Information Technology Support Services

LABRECQUE, Catherine, M.S., Regis University, 2009
Vocational Credentials
Director of Law Enforcement Academy, Division of Business, Public Service & Social Sciences

LACLAY, Emmett
Custodian I, Facilities & Operations

LAGLE, Richard
Pipe/Mechanical Trades II, Facilities & Operations

LANDIS, Annie, B.G.S., University of Kansas, 2018
Program Advisor, Advising & Testing

LANDIS, William, M.S., Minnesota State University, 2018
Vocational Credentials
Faculty of Outdoor Leadership and Recreation, Division of Medical Sciences

LANGAN, Lynn, A.A.S., Pikes Peak State College, 1992
Accounting Technician III, Financial Services

LANGE, Kristen, B.S.B, University of Colorado, 1999
AAVP of Strategic Partnership, High School Programs

LAWRENCE, Shanutel
Administrative Assistant II, Division of Math & English

LAWTON, David, M.S., National Defense University, 1998
Associate Professor of Mathematics, Division of Math & English

LEATHES, Jennifer, M.B.A., University of Phoenix, 2005
Recruitment & Admissions Specialist, Admissions, Recruitment, & Enrollment Services

LEBSOCK, Zachary, M.A., University of Colorado, 2017
Coordinator of Student Recruitment, Admissions, Recruitment, & Enrollment Services

LEE, Tracy, M.S., University of Nebraska, 2014
Professor of Biology, Division of Natural & Physical Sciences

LEE, Travis, A.A.S., Pikes Peak State College, 2009
Vocational Credentials
Faculty of Welding, Career Start, Division of Communications, Humanities & Technical Studies

LEMA, Melissa, M.S., Northern Arizona University, 2001
Vocational Credentials
Professor of Biology, Division of Natural & Physical Sciences

LEONIS, Marlene
Administrative Assistant II, Division of Communications, Humanities, and Technical Studies

LICHT, Deborah, Ph.D., Harvard University, 2001
Professor of Psychology, Division of Business, Public Service & Social Sciences

LIKINS, Andrew R., M.A., Azusa Pacific University, 2002
Associate Professor of English as a Second Language, Division of Math & English

LIKINS, Heidi, M.S.N., Grand Canyon University, 2018
Vocational Credentials
Faculty of Nursing, Division of Medical Sciences

LIONEL, William, B.A., University of California, 1992
Success Coach, Retention Services

LOGUE, Joshua
IT Service Desk Specialist, Information Technology Support Services

LONG, Christine "Betty", M.B.A., Western Governor's University, 2016
Manager of Student Accounts, Financial Services

LOVEJOY, McKenna, Ph.D., University of Colorado, 2017
Faculty of Mathematics, Division of Math & English

LOWDEN, Brandan, M.S., Kansas State University, 2012
Instructional Liaison, Advising & Testing

LUCERO, Jacob
Police Officer I, Campus Police

MADSEN, Jenny
Student Services Specialist II, Financial Aid

MADSON, Michael, M.S., Mississippi State University, 2000
Associate Dean, Division of Natural & Physical Sciences

MALUIA, Vaalele
Police Officer I, Campus Police

MANCALL, James, Ph.D., New York University, 1998
Chief of Staff, Office of the President

MANNERING, Julie, M.S., University of Phoenix, 1999
Vocational Credentials
Associate Professor of Computer Information Systems, Division of Business, Public Service & Social Sciences

MANNERING, Jeffrey "Scott", A.A.S., Pikes Peak State College, 1998
Vocational Credentials
Faculty of Welding, Division of Communications, Humanities & Technical Studies

MAREAN, Amber, Ph.D., University of Colorado, 2012
Professor of Biology, Division of Natural & Physical Sciences

MARTIN, Kendra, A.A.S., Pikes Peak State College, 1995
Human Resource Services FLAC Specialist, Human Resource Services

MARTIN, Paul, A.A.S., Pikes Peak State College, 2001
Lead IT Support Specialist, Information Technology Support Services

MARTINEAU, Darcy
AV Systems Analyst, Information Technology Support Services

MARTINEZ, Gabriela
Reference and Instruction Librarian, Library

MARTINEZ, Jessica
Accounting Technician III, Financial Services

MARTINEZ, Tierra
Faculty Pay & Training Coordinator, Instructional Support

MARTINEZ MERCIER, Gabriela, M.L.S., Emporia State University, 2015
Reference & Instruction Librarian, Library

MASON, Jennifer, B.S.N., Chamberlain College of Nursing, 2012
Vocational Credentials
Faculty of Nursing, Division of Medical Sciences

MATHER, Ty, B.S., Grand Canyon University, 2009
Vocational Credentials
Assistant Professor of Fire Science, Division of Business, Public Service & Social Sciences

MATTHEWS, Adam, B.S., Ithaca College, 1998
Vocational Credentials
Faculty of Radio & Television, Career Start, Division of Communications, Humanities & Technical Studies

MAXWELL, Graham, B.S.B., University of Colorado, 2015
Enrollment Services Specialist, Admissions, Recruitment, & Enrollment Services

MAYER, Sarah, M.A., Colorado State University, 2020
Program Advisor, Advising & Testing

MCCLUGGAGE, Bruce, M.A., Fuller Theological Seminary, 2005
Faculty of Philosophy, Division of Communications, Humanities & Technical Studies

MCDADE, Timothy
Materials Handler III, Division of Communications, Humanities & Technical Studies

MCMAHON, Sarah, M.Hum., University of Colorado, 2013
Faculty of English, Division of Math & English

MCPHERSON, Sharon, M.A., California State University, 1994
Assistant Professor of Mathematics, Division of Math & English

MCUMBER, Evy, Ph.D., Clemson University, 2013
Faculty of Chemistry, Division of Natural & Physical Sciences

MEHLHOSE, Greg, B.S., University of Missouri, 1999
IT Systems Manager, Information Technology Support Services

MELBY, Darlene
Vice President for Administrative Services, President's Office

MERCADO, Rick, A.A.S., Helena College of Technology, 1996
Vocational Credentials
Faculty of Automotive Services, Division of Communications, Humanities & Technical Studies

MERSON, Michael, M.C.J., University of Colorado, 2010
Vocational Credentials
Faculty of Criminal Justice, Division of Business, Public Service & Social Sciences

MESA, Maria, PhD in Education, Northcentral University, 2020
Director of Accessibility Services/CAC

MIELKE, Alyse, A.S., Kaplan University, 2011
Accounting Technician III, Financial Services

MILLER, Joseph, DScPT, Baylor University, 2011
Vocational Credentials
Faculty of Physical Therapy Assistant, Division of Medical Sciences

MILLER, Julie, A.G.S., Pikes Peak State College, 1991
Administrative Assistant III, Records

MILLER, Krystal, M.S., Colorado Technical University, 2004
Faculty of Advancing Academic Achievement, Department of Math & English

MILLER, Sarah, B.S.B.A., Colorado State University, 2009
Program Advisor, Advising & Testing

MILLER, Sylva, M.S., University of Utah, 2001
Professor of English, Division of Math & English

MILLS, Ralph
Vocational Credentials
Faculty of Automotive Collision Technology, Division of Communications, Humanities & Technical Studies

MITCHELL, Marcellus
Custodian I, Facilities & Operations

MOBOLADE, Abbey, M.S., Western Governors University, 2016
Vocational Credentials
Assistant Professor of Nursing, Division of Medical Sciences

MOORE, Nichole, M.S., Colorado State University, 2005
Vocational Credentials
Professor of Nursing, Division of Medical Sciences

MOORE-ALLEN, Selinea
Dakota Promise Program Specialist, Academic Resources

MORALES, Yolanda
Custodian I, Facilities & Operations

MORGAN, Amanda, M.H.R., University of Oklahoma, 2011
Vocational Credentials
Faculty of Nursing Assistant, Division of Medical Sciences

MORGAN, Taylor, B.S., Purdue University Global, 2017
SIM Technology Specialist, , Division of Medical Sciences

MORRIS, Kenneth, M.P.A., University of Colorado, 1992
Vocational Credentials
Professor of Criminal Justice, Division of Business, Public Service & Social Sciences

MORRISON, Jennifer, M.S., Troy University, 2002
Enrollment Services Manager, Admissions, Recruitment, & Enrollment Services

MOSS, Kristina, M.S., Regis University, 2012
Assistant Director FA for Customer Services & Technology, Financial Aid

MULLANE, Laura, B.S., University of North Georgia, 2008
Project Director of TRIO Student Support Services

MUNICK, Warren, M.A., Miami University, 1975
Assistant Professor of Economics, Division of Business, Public Service & Social Sciences

MURPHY, Dawn, Ph.D., Texas Women's University, 2020
Faculty of Nursing, Division of Medical Sciences

MURPHY, Lindsey, M.S.M., Colorado Technical University, 2007
Instructional Coordinator, Division of Medical Sciences

MYERS, Hettie, M.A., University of Colorado, 2013
Assistant to the Dean, Division of Communications, Humanities & Technical Studies

MYERS, Nicole, M.S.N., Grand Canyon University, 2022
Vocational Credentials
Faculty of Nursing, Division of Medical Sciences

NATALI, Dennis, Ph.D., Colorado State University, 2014
Vocational Credentials
Professor of Business, Division of Business, Public Service & Social Sciences

NAVARRO, Beatriz "Chrystal", M.A., Colorado Christian University, 2015
COSI Grant Program Specialist Coach, Academic Resources

NELSON, Donna, B.S., National American University, 2021
Chief Development Officer, Office of the President

NEPPL, Kaeley, B.S.Ed., University of Nebraska, 2006
Instructional Liaison, Advising & Testing

NEWFELD, Matthew, A.A.S., Denver Technical College, 2002
IT Service Desk Specialist, IT Support Services

NEWMAN, Hannah, M.S., Georgia Southern University, 2019
Business Intelligence Analyst, Institutional Effectiveness

NGO, Van, A.A.S., Pikes Peak State College, 2018
Staff Accountant, Financial Services

NIKOLAI, Gloria, M.A., University of Colorado, 1992
Professor of Sociology, Division of Business, Public Service & Social Sciences

NOBLE, Chad, M.A., University of Colorado, 2018
Program Advisor, Advising & Testing

NOVACK, Monica, M.S., University of Colorado, 1992
Vocational Credentials
Assistant Professor of Computer Information Systems, Division of Business, Public Service & Social Sciences

NYLANDER, Tor, B.A., University of Colorado, 2010
Coordinator of Accommodative Testing, Accessibility Services

NYMAN, Randee, D.N.P., Grand Canyon University, 2021
Vocational Credentials
Professor of Nursing, Division of Medical Sciences

OAKES, John, A.O.S., Technical Trades Institute, 1986
Vocational Credentials
Faculty of Heating, Air Conditioning & Refrigeration, Division of Communications, Humanities & Technical Studies

O'BRIEN, Alex, A.A.S., Pikes Peak State College, 2015
Vocational Credentials
Faculty of Zoo Keeping, Division of Natural & Physical Sciences

OGNIBENE, John, A.A.S., Sullivan Community College, 2013
Administrative Assistant III, Learning Commons

ORONA, Robert
Administrative Assistant II, Division of Medical Sciences

OSINSKI, Christopher, M.S., Western Governors University, 2021
Vocational Credentials
Faculty of Nursing, Division of Medical Sciences

OSWANDEL, David, M.S., University of Colorado, 2018
Faculty of Biology, Division of Natural & Physical Sciences

OUBRE, Chelsea
Administrative Assistant II, Advising & Testing

OVERGAARD, Barbara, M.A., William Carey International University, 1984
Assistant Professor of Advancing Academic Achievement, Division of Math & English

OWEN, Ashley, B.A., University of Colorado, 2016
Transition Specialist, TRIO Student Support Services

OWEN, Carolyn, M.B.S., University of Colorado, 2001
Vocational Credentials
Recreation and Wellness Coordinator, Student Life

PADEWAY, Patricia, M.H.R.M., Colorado State University, 2019
Talent Acquisition Manager, Human Resource Services

PALARINO, Deborah, M.S., University of Arkansas, 1990
Vocational Credentials
Associate Professor of Early Childhood Education, Division of Business, Public Service & Social Sciences

PARADISO, Michael, A.A.S., Pikes Peak State College, 2012
Vocational Credentials
Faculty of Culinary Arts, Division of Business, Public Service & Social Sciences

PARENT, Cyrille, M.A., University of Paris, 1995
Chief Technology Officer, Information Technology Support Services

PARKER, Carol A., A.A.S., Pikes Peak State College, 2003
Laboratory Coordinator I, Accessibility Services

PARKER, Carol J., M.L.A., Fort Hays State University, 2011
Assistant Professor of English, Division of Math & English

PARRISH, Renee, B.A., Regis University, 2013
IT Budget Finance Data Analyst, Information Technology Support Services

PAULEY, Stephanie, B.S., Colorado State University, 1997
Laboratory Coordinator II, Division of Natural & Physical Sciences

PEEBLES, Christine, J.D., University of San Diego School of Law, 1999
Faculty of Philosophy, Division of Communications, Humanities & Technical Studies

PEMBERTON, Victoria
Administrative Assistant III, Instructional Support

PEREZ, Ricardo, B.S., Johnson & Wales University, 2005
Director of Student Life, Student Life

PEREZ, Sabrina, B.S., University of Phoenix, 2010
Vocational Credentials
Faculty of Dental Assisting, Division of Medical Sciences

PERKINS, Rebecca, M.L.I.S., San Jose State University, 2015
Reference & Instruction Librarian, Library

PERRY, Jeffrey R., A.A.S., Central New Mexico Community College, 2006
Cloud Applications Administrator, Information Technology Support Services

PETERS, Bridget, M.A., University of New Orleans, 2017
Senior Analyst of Grants Compliance, Budget & Financial Services, Vice President of Administrative Services

PETERSON, Michael
Police Officer I, Campus Police

PETRUCCI, John
Pipe/Mechanics Trades II, Facilities & Operations

PHALEN, Karen, M.S., Western Governors University, 2021
Vocational Credentials
Faculty of Nursing, Division of Medical Sciences

PHARR, Zachary, M.S., University of Central Arkansas, 2010
Enrollment & Advising Remote Services Specialist, Vice President for Student Services

PIERCE, C. Dallas, M.B.A., Liberty University, 2006
Vocational Credentials
Faculty of Accounting, Division of Business, Public Service & Social Sciences

PIERCE, Heather, B.A., Northern Illinois University, 2010
Associate Dean of CTE, Division of Business, Public Service & Social Sciences

PINELL, Mara, B.S.W., Colorado State University, 2019
Assistant to the Dean, Division of Business, Public Service & Social Sciences

PONCE, Fernando, A.A.A.S., El Centro College, 1991
Vocational Credentials
Faculty of Carpentry and Construction, Division of Communications, Humanities & Technical Studies

PORTER, T. Martina, Ph.D., Walden University, 2014
Vocational Credentials
Faculty of Social Work, Division of Business, Public Service & Social Sciences

POSORSKI, Ewa, M.S., Massachusetts College of Pharmacy and & Health Sciences, 2013
Dental Center Director, Division of Medical Sciences

POSTLEWAIT, Larry
Pipe/Mechanical Trades I, Facilities & Operations

POYTHRESS III, George
Military & Veteran Enrollment Specialist, Military & Veterans Programs

PRITCHETT HILLIARD, Nichole, M.S., Capella University, 2008
Dean of Students

PROVINS, Sarah
Faculty of Emergency Medical Services, Division of Medical Sciences

PROVOST, David, M.M., American Public University System, 2016
Vocational Credentials
Faculty of Surgical Technician, Division of Medical Sciences

QUINN, Laura, M.S.Ed., Queens College/City University of NY, 1997
Testing & Entrance Advising Specialist, Advising & Testing

RADCLIFFE, Matthew, B.S.B., University of Colorado, 2017
Digital Strategy Manager, Marketing & Communication

RAMALLO, Martha, M.S., Radford University, 1991
Faculty of Spanish, Division of Communications, Humanities & Technical Studies

RAMEY, Kristi, B.S., North Georgia College, 1989
Vocational Credentials
Faculty of Physical Education, Division of Natural & Physical Sciences

REED, Amy, B.S., Colorado State University, 1983
Vocational Credentials
Faculty of Dental Assisting, Division of Medical Sciences

REYES, Michael
Military Admissions Specialist, Military & Veterans Programs

REYES, Regina, A.A.S., LaGuardia College, 1988
Vocational Credentials
Faculty of Veterinary Technology, Division of Natural & Physical Sciences

RICHARDSON, Andrew
Equipment Mechanic II, Facilities & Operations

RIDDLE, Ken, M.S., Colorado Technical University, 2000
Vocational Credentials
Professor of Computer Science, Division of Business, Public Service & Social Sciences

RIFFEE, Carrie, B.A., Colorado College, 2008
Project Specialist, TRIO Student Support Services

RINCON, Luisa, B.A., Queens College, 2009
Testing Manager, Advising & Testing

RIOS, Maricela
Custodian I, Facilities & Operations

RIOS-SCELSO, Tassandra, M.A., SIT Graduate Institute, 2018
Enrollment Services Communication Specialist, Admissions, Recruitment, & Enrollment Services

RITTER, Crystal, A.A., Pikes Peak State College, 2007
Administrative Assistant III, Division of Natural & Physical Sciences

RIX, Sheryl, Ph.D., University of California, 2007
Faculty of Communications, Division of Communications, Humanities & Technical Studies

ROBAK, Dana
Administrative Assistant III, Division of Business, Public Service & Social Sciences

ROBERTS, Benjamin, A.A.S., Pikes Peak State College, 2018
Vocational Credentials
Faculty of Emergency Medical Services, Division of Medical Sciences

ROBERTS, Calvin
Vocational Credentials
Faculty of Machining, Division of Communications, Humanities & Technical Studies

ROBERTS, Gary
Materials Handler II, Bookstore

ROBINSON, Amanda
Administrative Assistant III, Admissions, Recruitment, & Enrollment Services

ROBINSON, Constance, B.S., Regis University, 2004
Program Assistant I, Instructional Support

RODRIGUEZ, Christopher
Electrical Trades II, Facilities & Operations

ROGERS, James
Custodian I, Facilities & Operations

ROHLFING, Glenn, M.A., University of Colorado, 2005
Associate Professor of History, Division of Communications, Humanities & Technical Studies

ROLLINS, Susan, M.A.T., The Colorado College, 2011
Faculty of Mathematics, Division of Math & English

ROMESBURG, Robert
Administrative Assistant II, Division of Math & English

ROOT, Sandra
Administrative Assistant III, Admissions, Recruitment, & Enrollment Services

ROSENBERG, Lisa, B.A., York College, 1988
Program Advisor, Advising & Testing

ROSKOP, Nathan, M.S., Worcester Polytechnic Institute, 2002
Vocational Credentials
Faculty of Cybersecurity, Division of Business, Public Service, and Social Science

ROTH, Douglas, M.S., University of Texas, 1996
Associate Professor of Mathematics, Division of Math & English

ROUTH, Lisa, Ph.D., California Coast University, 2006
Professor of Psychology, Division of Business, Public Service & Social Sciences

ROWAN, Kristin, Ph.D., Oklahoma State University, 1996
Faculty of Chemistry, Division of Natural & Physical Sciences

RUIZ, Kandy, B.S., B.A., Colorado State University, 2013
Single Stop Student Coordinator, Student Services

RUSIN-EGNOR, Ann, M.P.A., Columbia Southern University, 2017
Vocational Credentials
Faculty of Criminal Justice, Division of Business, Public Service & Social Sciences

RYAN, Lily, AA., Arapahoe Community College, 2016
Accounts Payable Specialist, Financial Services

SALDANA, Cecilia, B.Eng., Technological Institute of Juarez City, 1994
Testing Support Specialist, Advising & Testing

SANDEE, Ryan, M.S., University of Colorado, 2018
Assistant Professor of Mathematics, Division of Math & English

SANDLIN, Barbara, M.A.T., University of Memphis, 2006
COSI Grant Program Lead Specialist Coach, Academic Resources

SANDMORE, Chris, A.A., Pikes Peak State College, 2008
Administrative Assistant II, Division of Communications, Humanities & Technical Studies

SANDOVAL, Virginia
Administrative Assistant III, Facilities & Operations

SATTERFIELD, Laci, B.A., University of Colorado, 2019
Disability Specialist, Accessibility Services

SCHAFER, Clint, M.S., Colorado Technical University, 1996
Vocational Credentials
Faculty of Computer Information Systems, Division of Business, Public Service & Social Sciences

SCHANTZ WILCOX, Andrea, Ph.D., University of Colorado, 1993
Faculty of Biology, Division of Natural & Physical Sciences

SCHELL, Joseph
Custodian I, Facilities & Operations

SCHILLING, Lachelle, Ph.D., Claremont Graduate University, 2014
Faculty of English, Division of Math & English

SCHNACKEL, Ryan, B.A., Fort Lewis College, 2006
Bookstore General Manager, Bookstore

SCHNEIDER, Christine, A.A.S., Pikes Peak State College, 1994
Program Assistant I, Instructional Support

SCHOFIELD, Robin, M.A., Arizona State University, 1994
Associate Professor of English, Division of Math & English

SCHOOLCRAFT, Deidre, M.A., University of Northern Colorado, 1992
Professor of English, Division of Math & English

SCHROTH, Ian
Vocational Credentials
Faculty of Automotive Service Technology, Division of Communications, Humanities & Technical Studies

SCHWANK, Katrina, B.A., Colorado Mesa University, 2017
Enrollment Services Specialist, Admissions, Recruitment, & Enrollment Services

SCOBEE, Roland
Director of Facilities, Facilities & Operations

SCOTT, Andrew, M.A., Western Illinois University, 2008
Director of Learning Support Services, Learning Commons

SELIGOVA, Ivana, M.S., Slovak Republic, 2004
Assistant Professor of Mathematics, Division of Math & English

SELLS, Norma Jean, B.S., Colorado State University, 1997
Default/Debt Management Advisor, Financial Aid

SERNA, Melissa, A.A.S., Everest College, 2002
Vocational Credentials
Faculty of Medical Assistant Professional, Division of Medical Sciences

SHARP, Amie, M.F.A., Seattle Pacific University, 2008
Associate Professor of English, Division of Math & English

SHAVER, Sarah, M.F.A., Texas Tech University, 2006
Faculty of Theatre, Division of Communications, Humanities & Technical Studies

SHAW, Daniel, Ph.D., Northwestern University, 1984
Faculty of Philosophy, Division of Communications, Humanities & Technical Studies

SHEARN, Jenna, M.A.T., The Colorado College, 2008
Vocational Credentials
Professor of Multimedia Graphic Design, Division of Communications, Humanities & Technical Studies

SHIPLEY, J. Renee, B.A., Oklahoma State University, 2009
Technician III, Military & Veterans Programs

SIM, Lynn, M.S., Colorado Technical University, 1993
Vocational Credentials
Faculty of Electronics, Division of Communications, Humanities & Technical Studies

SIMMONS, Terry, M.S., Texas A & M University, 1981
Cybersecurity Analyst, Information Technology Support Services

SMART, Lance
Structural Trades II, Facilities & Operations

SMITH, Lena, B.S., Stephen F. Austin State University, 2018
Financial Aid Advisor, Financial Aid

SMYTHE, David, D.M., University of Phoenix, 2009
Vocational Credentials
Faculty of Business, Division of Business, Public Service & Social Sciences

SNYDER, Stephanie, B.A., Western State University, 2009
Assistant Registrar, Records

SOLANO, Mario
Police Officer I, Campus Police

SOLOMON, Mandy, M.A., Eastern Illinois University, 2003
Assistant Professor of English, Division of Math & English

SOUTHCOTT, Joseph A., M.M.A.S., United States Army Command & General Staff College, 1996
Dean, Division of Math & English

SPLETSTOSER, Tara, B.S., North Dakota State University, 2001
Financial Aid Advisor, Financial Aid

SPURGEON, Jennifer, B.I.S., Remington College, 2004
Senior Accountant, Financial Services

STARKIE, Jessica, B.S., Colorado State University, 2011
Disability Specialist, Accessibility Services

STEPHENSON, Eric, M.A., University of Colorado, 1996
Associate Professor of English, Division of Math & English

STOCKMOE, Sydney, M.S.Ed., Baylor University, 2019
Veteran Student Success Coordinator, Military & Veterans Programs

STRAND, Peter, B.A., University of Colorado, 1991
Vocational Credentials
Professor of Multimedia Graphic Design, Division of Communications, Humanities & Technical Studies

STRATTON, Pamela, A.A.S., Pueblo Community College, 1994
Administrative Assistant III, Instructional Support

STREBEL, Chera
Accounting Technician IV, Financial Services

STREBEL, Jeff
Faculty of Industrial Mechatronics Maintenance, Department Chair, Division of Communications, Humanities & Technical Studies

STUBER, Jeffrey, B.A., National Labor College, 2010
Vocational Credentials
Professor of Industrial Mechatronic Maintenance, Division of Communications, Humanities & Technical Studies

STURDEVANT, Katherine, M.A., San Francisco State University, 1981
Professor of History, Division of Communications, Humanities & Technical Studies

SUE, Nadia
Administrative Assistant II, Division of Math & English

SUSTARSIC HARVEY, March, M.A., Ohio University, 2001
Professor of Spanish, Division of Communications, Humanities & Technical Studies

SWARTWOOD, Ronald, M.S., Regis University, 2007
Director of Financial Aid

SWARTZ, Jennifer, Ph.D., University of Virginia, 2008
Faculty of Biology, Division of Natural & Physical Sciences

TAMBLYN, Jeffrey D., A.G.S., Pikes Peak State College, 1995
Sales Manager I, Procurement

TAYLOR, Laurie
Administrative Assistant III, Division of Communications, Humanities & Technical Studies

TAYLOR, Ritika, M.S.N., Liberty University, 2014
Vocational Credentials
Faculty of Nursing Assistant, Division of Medical Sciences

TECLE, Habtom
Administrative Assistant II, Facilities and Operations

TEIXEIRA, Alberto, M.B.A., University of Colorado, 2016
Vocational Credentials
Director of Budget Services, Vice President of Administrative Services

TEKUBIE, Jodi
Technician IV, Admissions, Recruitment, & Enrollment Services

THANGAVELU, Chander, M.S., University of Colorado, 2021
Faculty of Computer Science, Division of Business, Public Service & Social Sciences

THEARD, Cynthia, A.G.S., Pikes Peak State College, 2005
Student Services Specialist II, Financial Aid

THEE, Nicole, B.S., Northern Arizona University, 2019
Financial Aid Advisor, Financial Aid

THORNE, Gina, M.A., University of Wyoming, 1998
Professor of Sociology, Division of Business, Public Service & Social Sciences

THORNSBY, Janna, M.A., University of Colorado, 1988
Testing Support Specialist, Advising & Testing

THRELFALL, Albert L., M.S., University of Alabama, 1991
Professor of Biology, Division of Natural & Physical Sciences

TIMCO, Lance, M.F.A., University of Dallas, 1991
Faculty of Art, Division of Communications, Humanities & Technical Studies

TJADEN, Jessica
Administrative Assistant III, Division of Business, Public Service & Social Sciences

TOLLIVER, Gary
Pipe/Mechanical Trades II, Facilities & Operations

TOMRDLE, Jacqueline, M.Ed., University of Massachusetts, 2020
Course Designer, Faculty Multimedia Consultant, eLearning

TOOLE, James, B.A., University of Colorado, 2020
Military and Veteran Enrollment Specialist, Military and Veterans Programs

TRUJILLO, Antoinette, B.S.B., University of Phoenix, 2019
Vocational Credentials
Faculty of Surgical Technology, Division of Medical Sciences

TRUJILLO, Esther
Administrative Assistant III, Records

TRUJILLO, Kristina, M.B.A., Colorado Mesa University, 2018
Student Services Communication Coordinator, Admissions, Recruitment, & Enrollment Services

TUNSON, Sharon, M.A., University of Phoenix, 1998
Assistant Director of Career Start

ULRICH, Andrea, M.S., Texas Women's University, 2007
Vocational Credentials
Faculty of Health & Wellness, Division of Natural & Physical Sciences

VALLEE, Patrick, M.A., California State University, 2012
Faculty of English, Division of Math & English

VELASQUEZ, Frances
Administrative Assistant III, Office of the President

VICKERS, Mark, RN-BSN, Hondros College of Nursing, 2016
Vocational Credentials
Program Coordinator, Faculty of Certified Nursing Assistant, Division of Medical Sciences

VIGIL, Gary
Grounds & Nursery III, Facilities & Operations

VIZZINI, Douglas
AELA Employment Specialist, Career Boost/WFD

WADMAN, Nate, B.S., Colorado State University, 1996
Vocational Credentials
Faculty of Computer Networking, Cyber, Division of Business, Public Service, & Social Science

WAIT, Pamella Jean, B.S.N., University of Colorado, 2004
Vocational Credentials
Faculty of Nursing Assistant, Division of Medical Sciences

WALKER, James, M.F.A., Spalding University, 2009
Director of Prior Learning Assessment, Instructional Services

WALKER, Jo, B.S., Texas A & M University, 1986
Director of Capital Projects, Facilities & Operations

WALLACE, Krista, M.A., University of Colorado, 2021
Program Advisor, Advising & Testing

WALLACE, Stacy
Lead, Advantage Student Success Program Specialist Coach, Academic Resources

WALLEN-SENA, Gwendolyn, M.A., University of Colorado, 2014
Assistant Professor of Anthropology, Division of Business, Public Service & Social Sciences

WARD, Alexander, B.A., University of Colorado, 2019
Program Advisor, Advising & Testing

WARD, Teresa, M.B.A., Colorado Technical University, 2011
Vocational Credentials
Director of Emergency Services Administration, Division of Business, Public Service & Social Sciences

WATERMAN, John, B.S., Regis University, 2019
Procurement & Contract Agent, Procurement

WEBBER, Sarah
Technician III, Admissions, Recruitment, & Enrollment Services

WELDON, Rachel, M.A.Ed., University of Phoenix, 2019
Course Designer & OER Coordinator, Academic Resources

WESLEY, Homer, Ed.D., University of Southern Mississippi, 1992
Vice President for Student Services

WHEELER, Brian, B.S., Colorado State University, 2004
Vocational Credentials
Faculty of Radio & Television, Division of Communications, Humanities & Technical Studies

WHEELER, Katie, M.A., University of Colorado, 2009
Professor of Communication, Division of Communications, Humanities & Technical Studies

WHITE, Danielle
Administrative Assistant III, Division of Business, Public Service & Social Sciences

WHITE, Matthew
General Labor I, Facilities & Operations

WHITTED, Sarah, B.A., The Art Institute of Colorado, 2003
Vocational Credentials
Faculty of Interior Design, Division of Communications, Humanities & Technical Studies

WHITTEN, Kimberly, M.Ed., Colorado State University, 2015

Vocational Credentials
Director of Operations, Center for Healthcare Education & Simulation

WIDMAR, Robin, A.A.S., Pikes Peak State College, 2011
Emergency Services & Clery Compliance Coordinator, Campus Police

WILLIS, Robert, A.A.S., Denver Technical College, 2001
Cloud and Client Services Manager, Information Technology Support Services

WILSON, Corrina
Accounting Technician II, Financial Services

WITT-AGNEW, Sheila
Program Assistant I, eLearning

WRIGHT-GILES, Karla, M.Ed., Framingham State University, 1993
Faculty of Business, Division of Business, Public Service, & Social Science

WU, Lisa, B.A., Columbia University, 2019
Coordinator, Navigate Content Administration & Integration, Advising & Testing

WULF, Lincoln, M.S., Friends University, 2011
Associate Vice President for Academic Resources

WYNN, Andrew
Structural Trades I, Facilities & Operations

YOUSEF, Rushdi, Ph.D., Martin Luther University, 2004
Professor of Chemistry, Division of Natural & Physical Sciences

ZIAI, Reza, M.A., Duquesne University, 1997
Faculty of Psychology, Division of Business, Public Service & Social Sciences

ZIMBLEMAN, Dana, M.A., Auburn University, 1991
Professor of English, Division of Math & English

ZINCONE, Joy, B.S., Wayland Baptist University, 1997
Career Pathways Coordinator, High School Programs

ZUREK, Doug
Police Officer II, Campus Police

CAMPUS DIRECTORY

	Centennial Campus	Downtown Campus	Rampart Range Campus
	Room • Phone:	Room • Phone:	Room • Phone:
Administrative Services, Vice President	A-324 • 502-2403		S-202 • 502-2100
Admissions	A-107 • 502-3000	S-100 • 502-3000	S-102 • 502-3000
Advising & Testing	A-121 • 502-3232	S-102 • 502-3232	S-101 • 502-3232
Art Gallery		S-109 • 502-4040	
Articulation, High School	A-220 • 502-3111		
Accessibility Services	A-130 • 502-3333	S-126 • 502-3333	S-202 • 502-3333
Aspen Market Cafe	A-211 • 502-4555		
Assessment	A-201a • 502-4045		
Bookstore	C-102 • 502-2665	S-104 • 502-2663	N-101 • 502-2664
Business, Public Service & Social Sciences Division	F-300 • 502-3300		W-209 • 502-3208
Campus Activities	A-210 • 502-2500	N-106 • 502-2091	S-207 • 502-2091
Campus Center Meeting Rooms	A-210 • 502-2089		
Campus Life Information Desk	A-210 • 502-2522	N-106 • 502-2538	S-207 • 502-2577
Campus Life Main Line	A-210 • 502-2500		
Campus Police Administration	A-100 • 502-2900	S-101 • 502-2900	N-106 • 502-2900
Campus Police Emergency Line	A-100 • 502-2911	S-101 • 502-2911	N-106 • 502-2911
Career Services	A-316 • 502-2360		
Career Start	A-220 • 502-3111		
Cashier	A-101 • 502-2086	S-100 • 502-2086	S-102 • 502-2086
Communications, Humanities & Technical Studies Division	F-300 • 502-3200	S-210 • 502-3200	W-119 • 502-3200
Computer Access Center (Accessibility Services)	A-130 • 502-3030	S-126	
Computer Labs	A-300 • 502-2442	S-207 • 502-2443	E-203 • 502-2408
Copy Center	C-101 • 502-2111		
Credit for Prior Learning	A-106 • 502-2302		
Dean of Students	A-106 • 502-2367		
eLearning	A-229 • 502-3555		
E-news Newsletter@pikespeak.edu	A-324 • 502-2022		
English as a Second Language	F-200 • 502-3535		

Department			
eXtra Music 102.1 FM	A-153 • 502-3166		
Facilities & Operations	B-229 • 502-2800	N-103 • 502-2800	N-111 • 502-2800
Financial Aid	A-110 • 502-3000	S-100 • 502-3000	S-102 • 502-3000
Financial Services	A-101 • 502-2300		
First Aid/Medical Assistance	A-100 • 502-2911	S-101 • 502-2911	N-104 • 502-2911
Fitness Center/Gymnasium	A-262 • 502-2555		
Food Services	A-211 • 502-2038		W-103 • 502-2042
Foundation	A-324 • 502-2013		
High School Articulation	A-220 • 502-3111		
Human Resource Services	B-200 • 502-2600		
Information Technology Support Services (ITSS)	B-201 • 502-4800	N-105 • 502-4800	E-206 • 502-4800
Computer Labs	A-300 • 502-2442	N-106 • 502-2443	E-203 • 502-2408
Service Desk	A-111 • 502-4800	502-4800	502-4800
Instructional Services, Vice President	A-324 • 502-3100		
Interpreting Services (Sign Language)	A-115 • 502-3026		
Learn to Earn	A-233 • 502-2404		
Learning Commons -Tutoring	A-200 • 502-3444	N-204• 502-2318	N-200• 502-3190
Library	A-201 • 502-2400		N-201 • 502-2440
Marketing & Communication	A-324 • 502-2082		
Math & English Division	F-200 • 502-3600		W-119 • 502-3171
Medical Sciences Division	CHES 200• 502-3700		
Military & Veterans Programs	C-222 • 502-4100 502-4200 / 502-4300		
Natural and Physical Sciences Division	F300 • 502-3400		W-209 • 502-3400
Ombuds	A-324 • 502-2012		
Pikes Peak Regional Law Enforcement Academy	F-300 • 502-3132		
Post-Secondary Enrollment Options (PSEO)/Concurrent Enrollment	A-220 • 502-3111		
PPSC -tv (WLX-245)	A-209 • 502-3458		
President's Office	A-324 • 502-2200		S-202 • 502-2200
Procurement	B-229 • 502-2007		
Publications & Printing	C-101 • 502-2111		
Reading Center	A-311 • 502-3510		
Records	A-106 • 502-3000	S-100 • 502-3000	S-102 • 502-3000
Recreation & Sports	A-262 • 502-2555		

Recruitment	A-106 • 502-2018	S-122b • 502-2088	S-102 • 502-2667
Scholarships	A-324 • 502-2016		
SkillsUSA	A-220 • 502-3111		
Southern Colorado Educational Opportunity Center (SCEOC)	A-110 • 502-3028		
The Counseling Center	A-141 • 502-4782	S-126 • 502-4689	S-207b • 502-4689
Student Government	A-204 • 502-2104	N-106 • 502-2103	S-207 • 502-2098
Student Services, Vice President	A-324 • 502-3563		
Student Services	A-107 • 502-3000	S-100 • 502-3000	S-102 • 502-3000
Student Success, Vice President	A-324 • 502-2541		
Transfer from PPSC		S-218 • 502-3237 S-122 • 502-3002	
TRIO Student Support Services	A-130 • 502-3222		
Veterans Upward Bound	C-220 • 502-4545		
Women's Forum	A-201 • 502-4044		
Workforce Development	A-223 • 502-2404		

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5675 S. Academy Blvd | Colorado Springs, CO 80906

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